

IN RE: PETITIONS FOR SPECIAL HEARING, * BEFORE THE
SPECIAL EXCEPTION & VARIANCE - NW/S
Providence Road, 664' NE of the * DEPUTY ZONING COMMISSIONER
c/l of Seminary Avenue
(1416 Providence Road) * OF BALTIMORE COUNTY
9th Election District
4th Councilmanic District * Case No. 97-276-SPIXA

Providence Volunteer Fire Co., Legal Owners, and
AT&T Wireless Services, Contract Lessee - Petitioners

* * * * *

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This matter comes before the Deputy Zoning Commissioner for consideration of Petitions for Special Hearing, Special Exception and Variance for that property known as 1416 Providence Road, located in the vicinity of Seminary Avenue in Towson. The Petitions were filed by the owners of the property, Providence Volunteer Fire Company, by Garrett D. Zour, President, and the Contract Lessee, AT&T Wireless Services, by Frances Kingsbury, through their attorney, S. Leonard Rottman, Esquire. The Petitioners seek relief for a proposed wireless transmitting and receiving facility to be located on the subject site, zoned D.R. 3.5. Specifically, the Petitioners request a special exception to permit said facility and approval of amendments to the previously approved site plans in prior Case Nos. 3937 (1954) and 80-257 to reflect the proposed improvements. In addition, the Petition for Variance, as filed, sought relief from Section 502.7.C.2 of the Baltimore County Zoning Regulations (B.C.Z.R.) to permit setbacks of as little as 24 feet from the southwestern property line, 54 feet from the northwestern property line, 85 feet from the northeastern property line, and 330 feet from the southeastern property line, all in lieu of the minimum required 360 feet, and from Section 502.7.C.3 of the B.C.Z.R. to permit a lot size of 1.10 acres in lieu of the minimum required 5 acres for the proposed facility. The

APPROVED

subject property and relief sought are more particularly described on the site plan submitted, which was accepted and marked into evidence as Petitioner's Exhibit 7.

It should be noted that the relief requested was amended at the hearing. As originally shown on the site plan, the proposed tower was to be 180 feet in height, which requires a minimum setback from any property line of 360 feet (twice the height of the tower). However, at the hearing it was indicated that the proposed tower may reach a height of 198 feet. Thus, the required setback would be 396 feet.

Appearing at the public hearing on behalf of these Petitions were numerous members of the Providence Volunteer Fire Company, including its President, Garrett D. Zour. Also appearing on behalf of the Petition were Frances Kingsbury, Michael Yglesias, and Chris Doherty, representatives of AT&T Wireless Services, Jeffrey Schonberger and Donald J. Neubauer, consultants retained by AT&T Wireless Services, and Paul A. Dorf, Esquire, who represented the Petitioners on behalf of Mr. Rottman. Many residents of the surrounding community appeared in opposition to the request, all of whom signed the Protestants Sign-In Sheet. In addition, Thomas Bodie, Esquire, appeared as counsel for the Protestants.

Testimony and evidence offered revealed that the subject property consists of 1.10 acres, more or less, zoned D.R. 3.5, and is the site of the Providence Volunteer Fire Company. The property is improved with a two-story fire station and macadam parking area to the rear. The lot is rectangular in shape and slopes downward from the front of the property on Providence Road. The Petitioners have entered into a Contract to lease a small portion of the rear of the property to AT&T Wireless Services who wishes to construct a wireless transmitting and receiving facility thereon.

AT&T Wireless Services is in the business of providing wireless and mobile communication services. As is the case with other similar providers (e.g., Cellular One, Bell Atlantic Nynex Mobile, etc.), AT&T Wireless Services is in the process of establishing a grid network in the Baltimore Metropolitan Area. This Deputy Zoning Commissioner has entertained a number of Petitions submitted by AT&T Wireless Services and its competitors. By virtue of these Petitions, I am familiar with the technology employed and the requirements for an antenna network to be established. Essentially, the company requires that its antennae be located within a previously identified geographic grid. As a mobile wireless communication user passes from one grid to the next, his/her communication is handed off from one antennae site to the next. AT&T Wireless Services has established much of this network within the Baltimore Metropolitan Area by either placing its antennae atop existing structures (e.g., buildings, water towers, etc.), or constructing monopoles in those areas where existing structures are not available.

Testimony offered by Mr. Yglesias on behalf of AT&T was that his company's network has an unacceptable level of service in the vicinity of the subject site. He indicated that calls could be dropped or weakened by mobile users of his network in this area. In order to correct this problem, AT&T conducted a search in order to find a suitable location for the installation of a wireless transmitting and receiving facility in the area. Mr. Yglesias submitted a number of exhibits which detail the vicinity at issue and the available sites. As those exhibits indicate, all of the properties within the designated search area are zoned residential (D.R.2 or D.R. 3.5) and there are no existing buildings or commercial properties available. Due to these limited options, AT&T Wireless Services approached

the Providence Volunteer Fire Company about erecting a monopole on their property at the subject site. Apparently, the Fire Company is a willing landlord, in view of the rental income which would be generated. Additionally, the Fire Company has the need for a tower on which to modernize and place antennae for its own communication system. Thus, the Fire Company and AT&T Wireless Services have consummated a lease for construction of a monopole on the site.

As shown on the plan, the pole will be constructed towards the rear of the property. This would be an unmanned facility, however, a small equipment shed/building will be constructed. Moreover, the plan shows that landscaping will be made available and a fence will be erected around the tower and building.

As stated previously, many residents of the surrounding community appeared in staunch opposition to the Petitioners' request. The Protestants were represented by Thomas Bodie, Esquire, attorney at law. The cumulative testimony of the Protestants who testified was that they are strongly opposed to the construction of a monopole, 198 feet in height, at this location. They believe the monopole will be unsightly and will detract from the residential character of their community. Furthermore, many residents opined that the tower, itself, would devalue their homesites. In addition, residents also expressed concern over whether the microwave transmissions which are emitted from these antennae are harmful to human beings. Several residents expressed concern over the long term effects of these microwave transmissions and believe that medical evidence is not yet conclusive as to the long range effects of these antennae on human beings. Finally, many of these residents asserted that AT&T Wireless Services could co-locate on a tower which was recently approved by Zoning

5/16/67
Jpg

Commissioner Lawrence E. Schmidt. That tower was approved by Commissioner Schmidt, and affirmed by the Board of Appeals and is proposed to be located at the Belvedere Baptist Church on Cheverley Road, just a short distance from the Providence Volunteer Fire Company. The many residents in attendance believe that AT&T should co-locate with American Personal Communications (APC) and therefore eliminate the need for this tower entirely.

Along those lines, Mr. Bodie submitted as Protestants' Exhibit 5, a letter written by Greg Sarro, Manager of APC, to Christopher Doherty, the Public Affairs Director for AT&T Wireless Services. That letter indicated that they obtained approval from the County Board of Appeals to construct the proposed tower at the Belvedere Baptist Church and are prepared to enter into a co-location sublease with AT&T for them to locate their antennae on the tower at that location.

In response to this assertion, representatives of AT&T Wireless indicated that the Belvedere Baptist Church site is not within their search area and therefore, is not an appropriate candidate for them to locate their antennae. AT&T asserted that since their original agreement with APC for the Belvedere Baptist Church, they have located antennae on the tower adjacent to Luskins on Cromwell Bridge Road. The Cromwell Bridge Road site covered much of the area that would have been covered by the tower at Belvedere Baptist Church. Therefore, AT&T Wireless no longer wishes to co-locate at the Belvedere Baptist Church tower. However, they are in need of a tower at the subject location on Providence Road.

After considering all of the testimony and evidence offered by the Petitioners, as well as the Protestants who attended the hearing, I find that the Petitioners' request for Special Hearing, Special Exception

and Variance should be denied. The site in question is simply too small an area to support a tower of the size and magnitude proposed herein. The variances from property line setback requirements for the tower are excessive and the overall acreage of the site falls well below the 5-acre requirement imposed by the B.C.Z.R. Furthermore, the site is in the middle of a highly residential area with homesites just a short distance from the proposed tower location. I do not believe that the antennae themselves pose health hazards to surrounding residents; however, I do believe that the height of the tower, given its close proximity to residential property lines, is an issue sufficient to warrant a denial of the relief requested. Furthermore, there have been at least prior agreements between AT&T Wireless and APC to enter into some type of co-location agreement at the Belvedere Baptist Church. For whatever reasons, AT&T believes that this is no longer a viable option for their network. However, it seems senseless to construct two separate towers for two companies, when both communication companies could have concentrated their efforts into one location and therefore, construct only one tower. For these reasons, and the many others offered at the hearing, I find that the relief requested should be denied, and I shall so Order.

After due consideration of the testimony and evidence presented, it appears that the relief requested in the Petitions for Special Hearing, Special Exception and Variance should be denied. The Petitioners have failed to prove that the proposed tower satisfies the criteria set forth in Section 502.1 of the B.C.Z.R. Furthermore, it is clear from the testimony that the granting of the relief requested would adversely affect the health, safety and general welfare of the surrounding community.

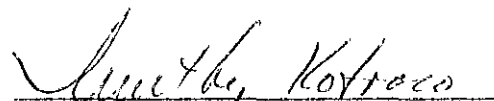
Pursuant to the advertisement, posting of the property, and public hearing on these Petitions held, and for the reasons set forth herein, the relief requested must be denied.

THEREFORE, IT IS ORDERED by the Deputy Zoning Commissioner for Baltimore County this 16th day of May, 1997 that the Petitions for Special Hearing and Special Exception seeking relief for a proposed wireless transmitting and receiving facility on the subject site, zoned D.R. 3.5, and approval of amendments to the previously approved site plans in prior Case Nos. 3937 (1954) and 80-257 to reflect the proposed improvements in accordance with Petitioner's Exhibit 7, be and is hereby DENIED; and,

IT IS FURTHER ORDERED that the Petition for Variance seeking relief from Section 502.7.C.2 of the Baltimore County Zoning Regulations (B.C.Z.R.) to permit setbacks of as little as 24 feet from the southwestern property line, 54 feet from the northwestern property line, 85 feet from the northeastern property line, and 330 feet from the southeastern property line, all in lieu of the minimum required 396 feet, and from Section 502.7.C.3 of the B.C.Z.R. to permit a lot size of 1.10 acres in lieu of the minimum required 5 acres for the proposed facility, in accordance with Petitioner's Exhibit 7, be and is hereby DENIED; and,

IT IS FURTHER ORDERED that the Petitioners shall have thirty (30) days from the date of this Order to file an appeal of this decision.

TMK:bjs


TIMOTHY M. KOTROCO
Deputy Zoning Commissioner
for Baltimore County



Baltimore County
Zoning Commissioner
Office of Planning and Zoning

May 16, 1997

Suite 112, Courthouse
400 Washington Avenue
Towson, Maryland 21204
(410) 887-4386

S. Leonard Rottman, Esquire, and Paul A. Dorf, Esquire
Adelberg, Rudow, Dorf, Hendler and Sameth, LLC
600 Mercantile Bank and Trust Building
2 Hopkins Plaza
Baltimore, Maryland 21201

RE: PETITIONS FOR SPECIAL HEARING, SPECIAL EXCEPTION, and VARIANCE
NW/S Providence Road, 664' NE of the c/l of Seminary Avenue
(1416 Providence Road)
9th Election District __ 4th Councilmanic District
Providence Volunteer Fire Co., Legal Owners, and
AT&T Wireless Services, Contract Lessee - Petitioners
Case No. 97-276-SPHXA

Dear Messrs. Rottman & Dorf:

Enclosed please find a copy of the decision rendered in the above-captioned matter. The Petitions for Special Exception, Special Hearing and Variance have been denied in accordance with the attached Order.

In the event any party finds the decision rendered is unfavorable, any party may file an appeal to the County Board of Appeals within thirty (30) days of the date of this Order. For further information on filing an appeal, please contact the Zoning Administration and Development Management office at 887-3391.

Very truly yours,

A handwritten signature in cursive script, reading "Timothy Kotroco".

TIMOTHY M. KOTROCO
Deputy Zoning Commissioner
for Baltimore County

TMK:bjs

cc: Mr. Garrett D. Zour, President, Providence Volunteer Fire Company
1416 Providence Road, Towson, Md. 21286
Mr. Frances Kingsbury, AT&T Wireless Services
8403 Coleville Road, Silver Spring, Md. 20910
Thomas G. Bodie, Esquire
21 W. Susquehanna Avenue, Towson, Md. 21204
Dr. Thomas F. Krajewski, 1417 Autumn Leaf Road, Towson, Md. 21286
Mr. & Mrs. Lewis Robertson, 1418 Providence Road, Towson, Md. 21286
Mr. Robert Bowie, Jr., 526 East Seminary Avenue, Towson, Md. 21286
Ms. Deborah Calhoun, 1407 Autumn Leaf Road, Towson, Md. 21286
Ms. Mary Bryant, 1802 Circle Road, Towson, Md. 21204
People's Counsel; Case File





Petition for Special Hearing

97-276-SHXXA

to the Zoning Commissioner of Baltimore County

for the property located at 1416 Providence Road, Towson, MD

which is presently zoned D.R. 3.5

This Petition shall be filed with the Office of Zoning Administration & Development Management.

The undersigned, legal owner(s) of the property situate in Baltimore County and which is described in the description and plat attached hereto and made a part hereof, hereby petition for a Special Hearing under Section 500.7 of the Zoning Regulations of Baltimore County, to determine whether or not the Zoning Commissioner should approve

To amend zoning case number 3937 (1954) and number 80-257 to permit a wireless transmitting and receiving facility in a D.R. 3.5 zone and necessary variances as per plat filed.

Property is to be posted and advertised as prescribed by Zoning Regulations.

I, or we, agree to pay expenses of above Special Hearing advertising, posting, etc., upon filing of this petition, and further agree to and are to be bound by the zoning regulations and restrictions of Baltimore County adopted pursuant to the Zoning Law for Baltimore County

(We do solemnly declare and affirm, under the penalties of perjury, that (we are the legal owner(s) of the property which is the subject of this Petition

Contract Purchaser/Lessor:

AT&T Wireless Services
(Type or Print Name)

BY: Frances Kingsbury
Signature
Frances Kingsbury
9403 Colesville Road, 16th Fl.

Address
Silver Spring, Maryland 20910

City State Zipcode

Attorney for Petitioner:

S. Leonard Rottman, Esq.
(Type or Print Name)

Signature

2 Hopkins Plaza (410) 539-5195
Address Phone No.

Baltimore, MD 21201
City State Zipcode

Legal Owner(s):

Providence Volunteer Fire Company
(Type or Print Name)

Signature

Garrett D. Zour, President

(Type or Print Name)

Signature

1416 Providence Road (410) 491-8725

Address Phone No

Towson, Maryland 21286

City State Zipcode

Name, Address and phone number of representative to be contacted

Frances Kingsbury

Name

8403 Coleville Road (301) 578-1078

Address Phone No.

Silver Spring, MD. 20910

OFFICE USE ONLY

ESTIMATED LENGTH OF HEARING

unavailable for hearing

the following dates _____ Next Two Months

ALL _____ OTHER _____

REVIEWED BY: Jan 1 DATE 1-6-97

276



Petition for Special Exception

97-276-SPI+XA

to the Zoning Commissioner of Baltimore County

for the property located at 1416 Providence Road, Towson, MD

which is presently zoned D.R. 3.5

This Petition shall be filed with the Office of Zoning Administration & Development Management.

The undersigned, legal owner(s) of the property situate in Baltimore County and which is described in the description and plat attached hereto and made a part hereof, hereby petition for a Special Exception under the Zoning Regulations of Baltimore County, to use the herein described property for

Special Exception pursuant to Section 1B01.1.C.20 to permit a wireless transmitting and receiving facility in a D.R. 3.5. zone.

Property is to be posted and advertised as prescribed by Zoning Regulations.

I, or we, agree to pay expenses of above Special Exception advertising, posting, etc., upon filing of this petition, and further agree to and are to be bound by the zoning regulations and restrictions of Baltimore County adopted pursuant to the Zoning Law for Baltimore County

Contract Purchaser/Lessee:

AT&T Wireless Services

(Type or Print Name)

By: Frances Kingsbury

Signature

Frances Kingsbury

8403 Colesville Road, 16th Fl.

Address

Silver Spring, Maryland 20910

City

State

Zipcode

Attorney for Petitioner:

S. Leonard Rottman, Esq.

(Type or Print Name)

Signature

2 Hopkins Plaza (410) 539-5195

Address

Phone No

Baltimore, MD 21201

State

Zipcode

I/We do solemnly declare and affirm under the penalties of perjury, that I/we are the legal owner(s) of the property which is the subject of this Petition

Legal Owner(s)

Providence Volunteer Fire Company

(Type or Print Name)

Signature

Garrett D. Zour, President

(Type or Print Name)

Signature

1416 Providence Road (410) 491-8725

Address

Phone No

Towson, Maryland 21286

City

State

Zipcode

Name Address and phone number of representative to be contacted.

Frances Kingsbury

Name

8403 Colesville Road (301) 578-1087

Address

Phone No

Silver Spring, MD 20910

OFFICE USE ONLY

ESTIMATED LENGTH OF HEARING

unavailable for Hearing

the following dates _____ Next Two Months

ALL _____ OTHER _____

REVIEWED BY: [Signature] DATE 1-6-97

276



Petition for Variance

97-2716-SP HXA
to the Zoning Commissioner of Baltimore County

for the property located at

1416 Providence Road, Towson, MD

which is presently zoned D. R. 3.5

This Petition shall be filed with the Office of Zoning Administration & Development Management.

The undersigned, legal owner(s) of the property situate in Baltimore County and which is described in the description and plat attached hereto and made a part hereof, hereby petition for a Variance from Section(s)

SEE ATTACHED

of the Zoning Regulations of Baltimore County, to the Zoning Law of Baltimore County; for the following reasons: (indicate hardship or practical difficulty)

To be developed at hearing.

Property is to be posted and advertised as prescribed by Zoning Regulations.

I, or we, agree to pay expenses of above Variance advertising, posting, etc., upon filing of this petition, and further agree to and are to be bound by the zoning regulations and restrictions of Baltimore County adopted pursuant to the Zoning Law for Baltimore County.

Contract Purchaser/Lessee:

AT&T Wireless Services
(Type or Print Name)

By: *Frances Kingsbury*
Signature

8403 Colesville Road, 16th Floor

Address

Silver Spring, Maryland 20910

City

State

Zipcode

Attorney for Petitioner:

S. Leonard Rottman, Esq.

(Type or Print Name)

Signature

2 Hopkins Plaza (410) 539-5195

Address

Phone No.

Baltimore, Maryland 21201

City

State

Zipcode

I/We do solemnly declare and affirm, under the penalties of perjury, that I/we are the legal owner(s) of the property which is the subject of this Petition

Legal Owner(s).

Providence Volunteer Fire Company
(Type or Print Name)

Signature

Garrett D. Zour, President

(Type or Print Name)

Signature

1416 Providence Road (410) 491-8725

Address

Phone No.

Towson, Maryland 21286

City

State

Zipcode

Name, Address and phone number of representative to be contacted

Frances Kingsbury

Name 8403 Colesville Road (301) 578-1087

Silver Spring, Maryland 20910

Address

Phone No.

OFFICE USE ONLY

ESTIMATED LENGTH OF HEARING

unavailable for Hearing

the following dates _____ Next Two Months

ALL _____ OTHER _____

REVIEWED BY: *[Signature]*

DATE

1-8-17

Printed with Soybean Ink
on Recycled Paper

Variance from Section 502.7.C.2 to permit a setback of as little as 24 feet from the Southwestern property line, 54 feet from the Northwestern property line, 85 feet from the Northeastern property line and 330 feet from the Southeastern property line for a wireless transmitting and receiving monopole in lieu of the required ~~260~~ feet.

396'

Variance from Section 502.7.C.3 to permit a wireless transmitting and receiving facility in a D.R. 3.5 zone on a lot of 1.10 acres in lieu of the required 5 acres.

97-276-SP1-1X7

276

5/16/17
Lop

97-276-SHXA

Description

To Accompany Petition for

Special Exception and Zoning Variances

1.10 Acre Parcel

The Providence Volunteer Fire Company Property

Northwest Side of Providence Road

Northeast of Seminary Avenue



Daft McCune Walker, Inc.

200 East Pennsylvania Avenue

Towson, Maryland 21286

410 296 3333

Fax 296 4705

A Team of Land Planners,

Landscape Architects,

Engineers, Surveyors &

Environmental Professionals

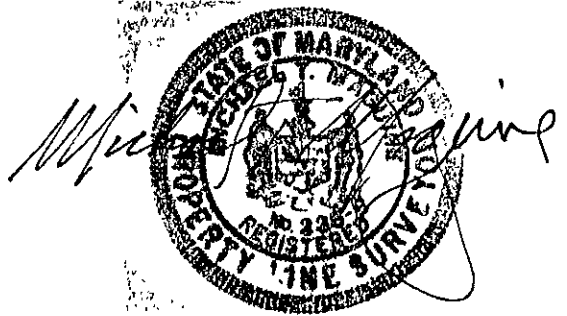
Beginning for the same in Providence Road at a point distant 664 feet, more or less, as measured northeasterly along Providence Road from its intersection with the centerline of Seminary Avenue, thence leaving Providence Road and running the six following courses and distances, viz: (1) North 39 degrees 43 minutes 14 seconds West 130.00 feet, thence (2) South 51 degrees 08 minutes 46 seconds West 11.00 feet, thence (3) North 39 degrees 06 minutes 14 seconds West 275.49 feet, thence (4) North 59 degrees 54 minutes 25 seconds East 125.83 feet, thence (5) South 38 degrees 55 minutes 02 seconds East 292.37 feet, and thence (6) South 38 degrees 55 minutes 02 seconds East 112.13 feet to intersect the aforesaid road, thence binding thereon (7) South 60 degrees 28 minutes 55 seconds West 112.15 feet to the point of beginning; containing 1.10 acres of land more or less.

THIS DESCRIPTION HAS BEEN PREPARED FOR ZONING PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR CONVEYANCE.

November 26, 1996

Project No. 96035.27 (L96035.27)

276



NOV 28 1996

NOTICE OF HEARINGS

The Planning Commission of Baltimore County, Maryland, held a public hearing on the proposed rezoning of a portion of Baltimore County and held a public hearing on the property identified herein in Room 106 of the County Office Building, 106 County Office Building, Baltimore, Maryland, on the following dates:

Case #31-276-SFHMA
(Item 276)

1476 Providence Road
MWS Providence Road, 684
47-NE of St. Mary Avenue
9th Election District
4th Councilmanic
Legal Districts:
Providence Volunteer Fire
Company

Contract/Purchaser:
AT&T Wireless Services

Special Hearing to amend zoning case 8837 and number 80-257 to permit a wireless transmitting and receiving facility and necessary variances as per item Special Exception to permit a wireless transmitting and receiving facility. Variances to permit a setback of 25 feet as 24 feet from the southwestern property line, 54 feet from the northeastern property line, 35 feet from the northeastern property line, and 330 feet from the southwestern property line for a wireless transmitting and receiving monopole in lieu of the required 380 feet and to permit a wireless transmitting and receiving facility on a lot of 1.10 acres in lieu of the required 5 acres.

Hearings: Friday, February 14, 1997 at 5:00 p.m. in Room 106, County Office Building.

LAWRENCE SCHANDT
Zoning Commissioner for
Baltimore County

NOTES: (1) Hearings are Handicapped Accessible for special accommodations. Please Call 887-3353.

(2) For information concerning the Fair and/or Hearing, Please Call 887-3351.

1/29/97 Jan 23

C114248

CERTIFICATE OF PUBLICATION

TOWSON, MD., 1/23, 1997

THIS IS TO CERTIFY, that the annexed advertisement was published in THE JEFFERSONIAN, a weekly newspaper published in Towson, Baltimore County, Md., once in each of 1 successive weeks, the first publication appearing on 1/23, 1997.

THE JEFFERSONIAN,

A. H. Enrich

LEGAL AD. - TOWSON

FILED



Baltimore County
Department of Permits and
Development Management

Development Processing
County Office Building
111 West Chesapeake Avenue
Towson, Maryland 21204

97-276-SP4XA

ZONING HEARING ADVERTISING AND POSTING REQUIREMENTS & PROCEDURES

Baltimore County zoning regulations require that notice be given to the general public/neighboring property owners relative to property which is the subject of an upcoming zoning hearing. For those petitions which require a public hearing, this notice is accomplished by posting a sign on the property (responsibility of which, lies with the petitioner/applicant) and placement of a notice in at least one newspaper of general circulation in the County.

This office will ensure that the legal requirements for advertising are satisfied. However, the petitioner is responsible for the costs associated with this requirement.

Billing for legal advertising, due upon receipt, will come from and should be remitted directly to the newspaper.

NON-PAYMENT OF ADVERTISING FEES WILL STAY ISSUANCE OF ZONING ORDER.

ARNOLD JABLON, DIRECTOR

For newspaper advertising:

Item No.: 276

Petitioner: OTIS COMPANY

Location: 1716 Providence R.

PLEASE FORWARD ADVERTISING BILL TO:

NAME: Leonardo Ramirez

ADDRESS: 2 Hymans PLAZA
BALTO., Md. 21201

PHONE NUMBER: 539-5125

AJ: qqs

(Revised 09/24/96)



11/11/11

BALTIMORE COUNTY, MARYLAND
OFFICE OF FI DE-REVENUE DIVISION
MISCELLANEOUS CASH RECEIPT

276 No. 026064

DATE 1-6-96 ACCOUNT Recor 6150

AMOUNT \$ 650.⁰⁰
AT & T WIRELESS 1416 PROVIDENCE
RD.

RECEIVED

FROM:

(020) COMBINATION VAP. MOC.
SO. EAS.

FOR:

UNRECORDED

6640.00

BY 0009100001-04-97

VALIDATION OR SIGNATURE OF CASHIER

Jcm

DISTRIBUTION

WHITE-CASHER

PINK-AGENCY

YELLOW-CUSTOMER

CERTIFICATE OF POSTING

RE: Case No.: 97-276-SPHXA

Petitioner/Developer: AT&T
WIRELESS SERVICES
c/o S. LEONARD ROITMAN

Date of Hearing/Closing: 4/22/97

Baltimore County Department of
Permits and Development Management
County Office Building, Room 111
111 West Chesapeake Avenue
Towson, MD 21204

Attention: Ms. Gwendolyn Stephens

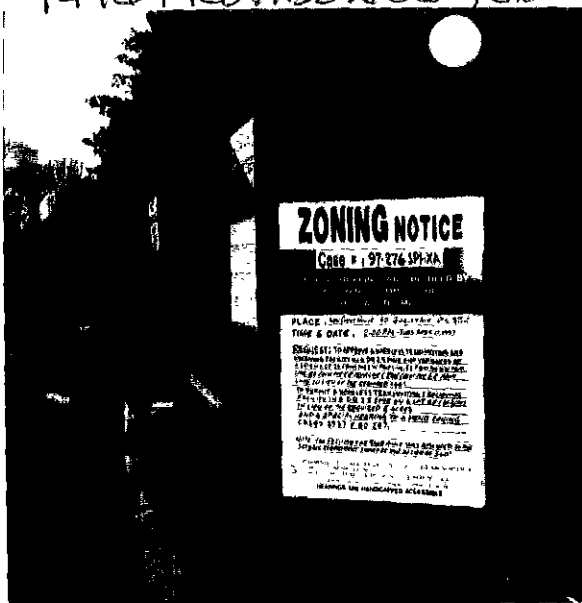
Ladies and Gentlemen:

This letter is to certify under the penalties of perjury that the necessary sign(s) required by law
were posted conspicuously on the property located at _____

1416 PROVIDENCE ROAD

The sign(s) were posted on APRIL 5, 1997
(Month, Day, Year)

1416 PROVIDENCE RD.



Sincerely,

Richard E. Hoffmann 4/5/97
(Signature of Sign Poster and Date)

RICHARD E. HOFFMANN
(Printed Name)

304 DELLWOOD DR
(Address)

FALLSTON, MD 21047
(City, State, Zip Code)

(410) 879-3122
(Telephone Number)

POSTED 4/5/97

Richard E. Hoffmann 4/5/97

CERTIFICATE OF POSTING

RE: Case No.: 276 SPHXA

Petitioner/Developer: AT&T Wireless Service

Date of Hearing/Closing: 02/14/97 @ 9:00AM

Baltimore County Department of
Permits and Development Management
County Office Building, Room 111
111 West Chesapeake Avenue
Towson, MD 21204

Attention: Ms. Gwendolyn Stephens

Ladies and Gentlemen:

This letter is to certify under the penalties of perjury that the necessary sign(s) required by law were posted conspicuously on the property located at 1416 Providence Road

The sign(s) were posted on

1/30/97
(Month, Day, Year)

Sincerely,

[Signature]
(Signature of Sign Poster and Date)

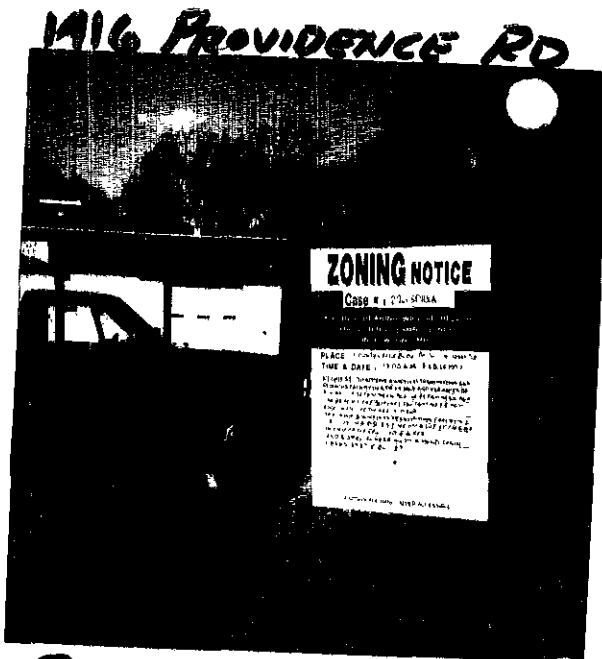
Richard Hoffman

(Printed Name)

904 Dollwood Drive
(Address)

Fallston, Maryland 21037
(City, State, Zip Code)

(410)879-3122
(Telephone Number)



POSTED 1/30/97
Richard E. Hoffman
RICHARD E. HOFFMAN

Request for Zoning: Variance, Special Exception, or Special Hearing

Date to be Posted: Anytime before but no later than _____

Format for Sign Printing, Black Letters on White Background:

ZONING NOTICE

Case No. 97-276-SPHXA

A PUBLIC HEARING WILL BE HELD BY
THE ZONING COMMISSIONER
IN TOWSON, MD.

PLACE: _____

DATE AND TIME: _____

REQUEST: TO APPROVE A WIRELESS TRANSMITTING
AND RECEIVING FACILITY IN A DR3.5 ZONE AND
VARIANCES of 7,
AND A SOCIAL HEARING TO AMEND ZONING
CASES 3937 & 80-257.

POSTPONEMENTS DUE TO WEATHER OR OTHER CONDITIONS ARE SOMETIMES NECESSARY.
TO CONFIRM HEARING CALL 887-3391.

DO NOT REMOVE THIS SIGN AND POST UNTIL DAY OF HEARING UNDER PENALTY OF LAW

HANDICAPPED ACCESSIBLE

SEE
ATTACHED

~~Variance from Section 502.7.6.2~~ to permit a setback of as little as 24 feet from the Southwestern property line, 54 feet from the Northwestern property line, 85 feet from the Northeastern property line and 330 feet from the Southeastern property line for a wireless transmitting and receiving monopole in lieu of the required 360 feet.

~~Variance from Section 502.7.6.3~~ to permit a wireless transmitting and receiving facility in a D.R. 3.5 zone on a lot of 1.10 acres in lieu of the required 5 acres.

97-276-SPH(XF)

126

TO: PUTUXENT PUBLISHING COMPANY
January 23, 1997 Issue - Jeffersonian

Please forward billing to:

Leonard Rottman, Esq.
2 Hopkins Plaza
Baltimore, MD 21201
539-5195

NOTICE OF HEARING

The Zoning Commissioner of Baltimore County, by authority of the Zoning Act and Regulations of Baltimore County, will hold a public hearing on the property identified herein in
Room 106 of the County Office Building, 111 W. Chesapeake Avenue in Towson, Maryland 21204
or
Room 118, Old Courthouse, 400 Washington Avenue, Towson, Maryland 21204 as follows:

CASE NUMBER: 97-276-SPHX (Item 276)
1416 Providence Road
NW/S Providence Road, 664' +/- NE of c/l Seminary Avenue
9th Election District - 4th Councilmanic
Legal Owner(s): Providence Volunteer Fire Company
Contract Purchaser(s): AT&T Wireless Services

Special Hearing to amend zoning case 3937 and number 80-257 to permit a wireless transmitting and receiving facility and necessary variances as per filed.

Special Exception to permit a wireless transmitting and receiving facility.

Variance to permit a setback of as little as 24 feet from the southwestern property line, 54 feet from the northwestern property line, 85 feet from the northeastern property line, and 330 feet from the southeastern property line for a wireless transmitting and receiving monopole in lieu of the required 360 feet; and to permit a wireless transmitting and receiving facility on a lot of 1.10 acres in lieu of the required 5 acres.

HEARING: FRIDAY, FEBRUARY 14, 1997 at 9:00 a.m. in Room 106, County Office Building.

LAWRENCE E. SCHMIDT
ZONING COMMISSIONER FOR BALTIMORE COUNTY

NOTES: (1) HEARINGS ARE HANDICAPPED ACCESSIBLE; FOR SPECIAL ACCOMMODATIONS PLEASE CALL 887-3353.
(2) FOR INFORMATION CONCERNING THE FILE AND/OR HEARING, PLEASE CALL 887-3391.



Baltimore County
Department of Permits and
Development Management

Development Processing
County Office Building
111 West Chesapeake Avenue
Towson, Maryland 21204

January 16, 1997

NOTICE OF HEARING

The Zoning Commissioner of Baltimore County, by authority of the Zoning Act and Regulations of Baltimore County, will hold a public hearing on the property identified herein in
Room 106 of the County Office Building, 111 W. Chesapeake Avenue in Towson, Maryland 21204
or
Room 118, Old Courthouse, 400 Washington Avenue, Towson, Maryland 21204 as follows:

CASE NUMBER: 97-276-SPHXA (Item 276)
1416 Providence Road
NW/S Providence Road, 664'+/- NE of c/l Seminary Avenue
9th Election District - 4th Councilmanic
Legal Owner(s): Providence Volunteer Fire Company
Contract Purchaser(s): AT&T Wireless Services

Special Hearing to amend zoning case 3937 and number 80-257 to permit a wireless transmitting and receiving facility and necessary variances as per filed.

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HEARING: FRIDAY, FEBRUARY 14, 1997 at 9:00 a.m. in Room 106, County Office Building.

A handwritten signature in cursive script, reading "Arnold Jablon".

Arnold Jablon
Director

cc: Providence Volunteer Fire Company
Frances Kingsbury
AT&T Wireless Services
S. Leonard Rottman, Esq.

NOTES: (1) YOU MUST HAVE THE ZONING NOTICE SIGN POSTED ON THE PROPERTY BY JANUARY 30, 1997/
(2) HEARINGS ARE HANDICAPPED ACCESSIBLE; FOR SPECIAL ACCOMMODATIONS PLEASE CALL 887-3353.
(3) FOR INFORMATION CONCERNING THE FILE AND/OR HEARING, CONTACT THIS OFFICE AT 887-3391.





Baltimore County
Department of Permits and
Development Management

Development Processing
County Office Building
111 West Chesapeake Avenue
Towson, Maryland 21204

February 21, 1997

NOTICE OF REASSIGNMENT

Rescheduled from 2/14/97
CASE NUMBER: 97-276-SPHXA (Item 276)
1416 Providence Road
NW/S Providence Road, 664'+/- NE of c/l Seminary Avenue
9th Election District - 4th Councilmanic
Legal Owner(s): Providence Volunteer Fire Company
Contract Purchaser(s): AT&T Wireless Services

Special Hearing to amend zoning case 3937 and number 80-257 to permit a wireless transmitting and receiving facility and necessary variances as per filed.

Special Exception to permit a wireless transmitting and receiving facility.

Variance to permit a setback of as little as 24 feet from the southwestern property line, 54 feet from the northwestern property line, 85 feet from the northeastern property line, and 330 feet from the southeastern property line for a wireless transmitting and receiving monopole in lieu of the required 360 feet; and to permit a wireless transmitting and receiving facility on a lot of 1.10 acres in lieu of the required 5 acres.

HEARING: MONDAY, MARCH 24, 1997 at 11:00 a.m. in Room 118, Old Courthouse, 400 Washington Avenue, Towson, Maryland.


ARNOLD JABLON
DIRECTOR

cc: Providence Volunteer Fire Company
Frances Kingsbury
AT&T Wireless Services
S. Leonard Rottman, Esq.





Maryland Department of Transportation
State Highway Administration

David L. Winstead
Secretary

Parker F. Williams
Administrator

Ms. Roslyn Eubanks
Baltimore County Office of
Permits and Development Management
County Office Building, Room 109
Towson, Maryland 21204

RE: Baltimore County 1-17-97
Item No. 276 (JCM)

Dear Ms. Eubanks:

This office has reviewed the referenced item and we have no objection to approval as it does not access a State roadway and is not affected by any State Highway Administration projects.

Please contact Larry Gredlein at 410-545-5606 if you have any questions.

Thank you for the opportunity to review this item.

Very truly yours,

for Ronald Burns, Chief
Engineering Access Permits
Division

LG

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

BALTIMORE COUNTY, MARYLAND
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT
INTER-OFFICE CORRESPONDENCE

TO: POM

FROM: R. Bruce Seeley,
Permits and Development Review
DEPRM

SUBJECT: Zoning Advisory Committee
Meeting Date: Jan 24, 92

DATE: Jan 23, 92

The Department of Environmental Protection & Resource Management has no comments for the following Zoning Advisory Committee Items:

Item #'s:

(276)

278

279

280

281

283

285

RBS:sp

BRUCE2/DEPRM/TXTSBP

B A L T I M O R E C O U N T Y , M A R Y L A N D

INTER-OFFICE CORRESPONDENCE

TO: Arnold Jablon, Director
Permits and Development
Management

DATE: January 27, 1997

FROM: Pat Keller, Director
Office of Planning

SUBJECT: Petitions from Zoning Advisory Committee

The Office of Planning has no comments on the following petition(s):

Item No. 276

If there should be any further questions or if this office can provide additional information, please contact Jeffrey Long in the Office of Planning at 887-3495.

Prepared by:

Jeffrey W. Long

Division Chief:

Carol L. Keena

PK/JL

Baltimore County Government
Fire Department



700 East Joppa Road
Towson, MD 21286-5500

Office of the Fire Marshal
(410) 887-4880

DATE: 01/23/97

Arnold Jablon, Director
Zoning Administration and Development Management
Baltimore County Office Building
Towson, MD 21204
MAIL STOP-1105

RE: Property Owner: SEE BELOW

Location: DISTRIBUTION MEETING OF JAN. 21, 1996.

Item No.: SEE BELOW

Zoning Agenda:

Gentlemen:

Pursuant to your request, the referenced property has been surveyed by this Bureau and the comments below are applicable and required to be corrected or incorporated into the final plans for the property.

8. The Fire Marshal's Office has no comments at this time,
IN REFERENCE TO THE FOLLOWING ITEM NUMBERS:
(276, 277, 278, 281, 282, 283, 284 AND 286.

REVIEWER: LT. ROBERT P. SAUERWALD
Fire Marshal Office, PHONE 887-4881, MS-1102F

cc: File



PETITION PROBLEMS

97-276-SPH XFA

#276 --- JCM

1. Need title of person signing for contract purchaser.

#280 --- MJK

1. There is no attorney listed on the petition form. As the legal owner is incorporated, they need to be represented by an attorney.

#281 --- JRA

1. Need telephone number for legal owner.

#282 --- JLL

1. No zoning on folder.
2. No election district on folder.
3. No councilmanic district on folder.
4. No acreage on folder.

#283 --- JRA

1. No acreage on folder.
2. No election district on folder.
3. No councilmanic district on folder.

#285 --- CAM

1. Need name and title of person signing for contract purchaser.

#286 --- JCM

1. Folder not marked "Floodplain".



Baltimore County
Zoning Commissioner
Office of Planning and Zoning

Suite 112, Courthouse
400 Washington Avenue
Towson, Maryland 21204
(410) 887-4386

April 1, 1997

Paul A. Dorf, Esquire
Adelberg, Rudow, Dorf, Hendler and Sameth, LLC
600 Mercantile Bank and Trust Building
2 Hopkins Plaza
Baltimore, Maryland 21201

RE: PETITIONS FOR SPECIAL HEARING, SPECIAL EXCEPTION, and VARIANCE
NW/S Providence Road, 664' NE of the c/l of Seminary Avenue
(1416 Providence Road)
9th Election District _ 4th Councilmanic District
Providence Volunteer Fire Co., Legal Owners, and
AT&T Wireless Services, Contract Lessee - Petitioners
Case No. 97-276-SPHXA

Dear Mr. Dorf:

This letter is a follow-up to the hearing held on March 24, 1997 and our subsequent conversation on the above-captioned matter.

As you know, this case was originally scheduled to be heard on February 14, 1997; however, by letter dated February 5, 1997, a request for postponement was received from you. In response thereto, I wrote on February 6, 1997 indicating that your request for postponement would be granted and instructed you to contact Gwendolyn Stephens, Docket Clerk, to reschedule this matter.

The matter was indeed rescheduled for March 24, 1997 and testimony and evidence taken. Subsequent to the hearing, you advised that the property was not reposted with notice of the new hearing date. In my judgment, reposting of the property should have occurred. Had I actually called the case on February 14, 1997 and postponed the matter in open hearing, notice of the new hearing date would have been directed to all who appeared. However, since the postponement was done by letter prior to the hearing, there was no opportunity for interested parties or members from the surrounding community to appear in open hearing and be notified of the new hearing date.

I have therefore rescheduled this matter for another public hearing on Tuesday, April 22, 1997 at 2:00 PM. Under current County policy, the Petitioner is responsible for posting the property with a sign advertising the hearing date for at least 15 days prior to the hearing. In this case, the file discloses that the Petitioner had retained the services of Richard Hoffman (410-879-3122) to originally post the sign

cc

Paul A. Dorf, Esquire
April 1, 1997
Page 2

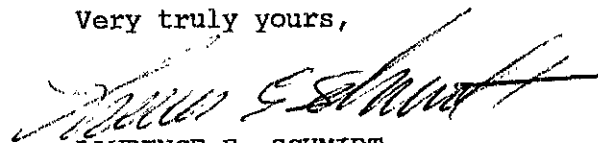
regarding the hearing on February 14, 1997. It is suggested that you contact Mr. Hoffman and arrange for posting public notice of the upcoming hearing at least 15 days prior to April 22, 1997.

In that testimony and evidence was received on March 24, 1997, the rehearing on this matter may be abbreviated. If no one appears as either a Protestant or interested party, I will not require that you present your case again and offer testimony and evidence. Instead, I will accept, by proffer, the testimony and evidence previously offered in open hearing on March 24, 1997. However, in the event interested persons or Protestants do appear, I believe it appropriate that the case be reheard so that individuals may hear the specifics of your client's proposal. I will leave it to your judgment as to whether you will require your witnesses to attend the hearing or will place them "on call".

Lastly, I recommend that the notice of posting reflect the amended request which was offered and accepted in open hearing. That is, the Petition for Variance was amended so as to note that the setback requirements should be 396 feet, in lieu of 360 feet. The proper request should be shown on the sign.

I apologize for any confusion on the part of this office as to these posting requirements. Please do not hesitate to contact me should you have any further questions.

Very truly yours,



LAWRENCE E. SCHMIDT
Zoning Commissioner
for Baltimore County

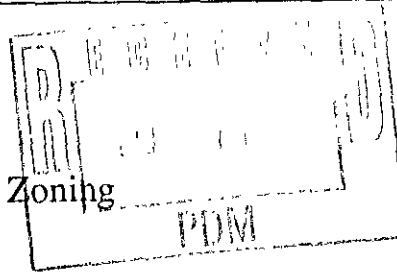
LES:bjs

Case File

97-558



Baltimore County
Zoning Commissioner
Office of Planning and Zoning



Suite 112, Courthouse
400 Washington Avenue
Towson, Maryland 21204
(410) 887-4386

4/7/97
y

February 6, 1997

Paul A. Dorf, Esquire
Adelberg, Rudow, Dorf, Hendler and Sameth, LLC
600 Mercantile Bank and Trust Building
2 Hopkins Plaza
Baltimore, Maryland 21201

RE: Case No. 97-276-SPHXA
AT&T Wireless Services - 1416 Providence Road
Your file 9478-752

Dear Mr. Dorf:

Receipt of your letter, dated February 5, 1997 regarding the above captioned case, is hereby acknowledged. I will grant the postponement of the hearing scheduled for February 14, 1997 at 9:00 A.M. Please make arrangements to reschedule same with the Docket Clerk, Ms. Gwen Stephens, at 887-3391, after the March 19th date.

Please place a notice of the postponement at the site, in a timely fashion, so that any interested persons who wish to appear will have notice of the postponement.

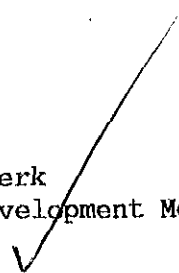
If you have any questions regarding same, please do not hesitate to call my office.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Lawrence E. Schmidt".
Lawrence E. Schmidt
Zoning Commissioner

LES:mmn

c: Gwen Stephens, Docket Clerk
Office of Permits and Development Mge.



MICROFILMED



P.P.

RE: PETITION FOR SPECIAL HEARING	*	BEFORE THE
PETITION FOR SPECIAL EXCEPTION		
PETITION FOR VARIANCE	*	ZONING COMMISSIONER
1416 Providence Road, NW/S Providence Rd,		
664'+/- NE of c/l Seminary Avenue	*	OF BALTIMORE COUNTY
9th Election District, 4th Councilmanic		
	*	CASE NO. 96-276-SPHX
Legal Owner(s): Providence Volunteer Fire Co.		
Contract Purchaser(s): AT&T Wireless Services		
Petitioners	*	

* * * * *

ENTRY OF APPEARANCE

Please enter the appearance of the People's Counsel in the above-captioned matter. Notice should be sent of any hearing dates or other proceedings in this matter and of the passage of any preliminary or final Order.

Peter Max Zimmerman
PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

Carole S. Demilio
CAROLE S. DEMILIO
Deputy People's Counsel
Room 47, Courthouse
400 Washington Avenue
Towson, MD 21204
(410) 887-2188

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 20th day of February, 1997, a copy of the foregoing Entry of Appearance was mailed to S. Leonard Rottman, Esq., 2 Hopkins Plaza, Baltimore, MD 21201, attorney for Petitioners.

Peter Max Zimmerman
PETER MAX ZIMMERMAN

MIG

Given -

He's the
guy we
discussed,

F.P. at
request of
attny,

See my
letter
inside

JSB

ENCLOSURE

BODIE, NAGLE, DOLINA,
SMITH & HOBBS

A PROFESSIONAL ASSOCIATION

ATTORNEYS AT LAW

21 West Susquehanna Avenue

Towson, MD 21204-5279

(410) 823-1250

Fax: (410) 296-0432

Web Site: <http://www.bodienagle.com>

E-Mail: bodienagle.com

Martin J. Smith

(1938-1992)

C. Arthur Eby, Jr.

(Retired)

Reisterstown Office:

143 Main Street

Reisterstown, MD 21136

(410) 833-1221

Fax: (410) 833-0026

Harford County Office:

112 W. Pennsylvania Ave., Suite 103

Bel Air, MD 21014

(410) 836-8943

Fax: (410) 893-9701

Thomas G. Bodie

John J. Nagle, III

Thomas J. Dolina

Chester H. Hobbs, IV *

Michael Paul Smith

Michael G. DeHaven

Kathleen Fitzgerald Keyser

R. Scott Krause

Of Counsel:

R. Taylor McLean, Jr.

Wallace Dann

David L. Thurston

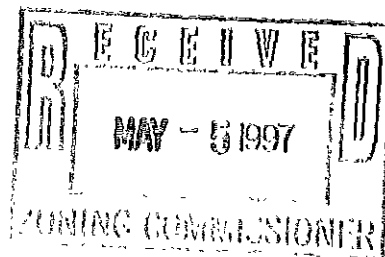
Kelly A. Koerner

May 5, 1997

* Also Admitted in DC

HAND DELIVERED

Mr. Timothy M. Kotroco
Deputy Zoning Commissioner
Baltimore County
400 Washington Avenue
Towson, Maryland 21204



Re: Proposed AT&T Tower

Case No.: 97-352-XX

97-276-SPHXA

Dear Commissioner Kotroco:

Regarding the above captioned matter, I enclose a copy of the letter of Thomas F. Krajewski, M.D., to the undersigned, dated May 1, 1997, which letter enclosed the following:

1. Abstract from *Progress in Safety Assessments of Mobile Communications* (revised title: *Mobile Communications Safety*), Kuster, Balzano and Lin, editors. (Abstract: Section 4 "Bioeffects of Mobile Communications Fields"), 1996.

2. Abstract from *American Journal of Epidemiology* "Miscarriages Among Female Physical Therapist who Report Using Radio-Microwave-Frequency Electromagnetic Radiation." 1993.

3. EMF Health Report, Volume 4, Number 5 (abstract) 1996.

4. Abstract, Elsevier Science Publishers "The Relationship Between Colony-Forming Ability, Chromosome Aberrations and Incidence of Micronuclei in V79 Chinese Hamster Cells Exposed to Microwave Radiation."

Mr. Timothy M. Kotroco
Deputy Zoning Commissioner
May 5, 1997
Page 2

5. 10 Abstracts on studies involving microwaves altering living tissues at the biochemical, molecular and genetic levels (including abstracts of the materials referenced in paragraphs 2 and 4.)

Please pardon any delay in getting these materials to you, which were delivered to my office on Friday, at a time when I was away.

Very truly yours,

A handwritten signature in black ink, appearing to read "T. G. Bodie", with a stylized flourish at the end.

Thomas G. Bodie

TGB:dmt
Enclosures

cc: Paul A. Dorf, Esquire (with enclosures)
Mr. Ron Porterfield (without enclosures)

ADELBERG, RUDOW, DORE, HENDLER & SAMETH, LLC

ATTORNEYS AT LAW

600 MERCANTILE BANK & TRUST BUILDING
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201

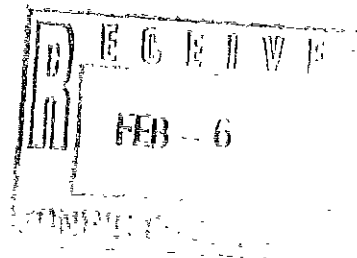
TELEPHONE
410-539-5195

TELECOPIER
410-539-5834

PAUL A. DORF

February 5, 1997

Lawrence E. Schmidt, Esq.
Zoning Commissioner for Baltimore County
Old Courthouse, Room 112
400 Washington Avenue
Towson, Maryland 21204



Re: AT&T Wireless Services - 1416 Providence Road
Case No. 97-276-SPHXA
Our File No. 9478-752

Dear Mr. Schmidt:

This will confirm our telephone message to your office today requesting that the above captioned matter now scheduled for hearing on Friday, February 14, 1997 at 9:00 a.m. be postponed until after March 19, 1997. The purpose of the postponement is to allow time for coordination between APC/Sprint and AT&T Wireless Services to co-locate their telecommunications equipment on a single monopole to be built in the Providence Road area.

As you know, you recently granted APC the right to construct a telecommunications monopole at 1301 Cheverly Road (Case No. 96-508-SPHX.) That case is now under appeal and the appeal hearing is scheduled for March 19th.

I would appreciate it if you would advise us of your decision on the requested postponement as soon as possible. We will be happy to have a notice of the postponement posted at the site as soon as we hear from you.

Very truly yours,


Paul A. Dorf

PAD/pjh
073s/at&tsom2

cc: Ms. Frances Kingsbury
Mr. Christopher Doherty

ADELBERG, RUDOW, DORE, HENDLER & SAMETH, LLC

ATTORNEYS AT LAW

600 MERCANTILE BANK & TRUST BUILDING
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201

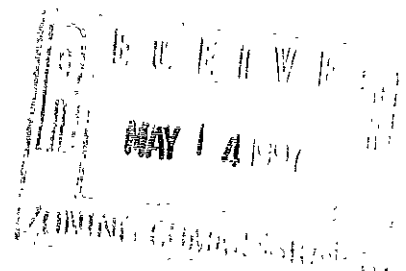
TELEPHONE
410-539-5195

TELECOPIER
410-539-5834

PAUL A. DORF

May 9, 1997

Mr. Timothy M. Kotroco
Deputy Zoning Commissioner
Baltimore County
400 Washington Avenue
Towson, MD 21204



Re: Proposed AT&T Tower
Case No. 97-352-XA

99-276-5PNXA

Dear Commissioner Kotroco:

AT&T objects strenuously to the submission of documents by Thomas G. Bodie, Esq., in the above matter for the following reasons:

1. Baltimore County is expressly precluded by the Telecommunications Act of 1996 from issuing a denial in a zoning case based on health information.

2. The information provided by Mr. Bodie is unfounded and unsubstantiated by valid scientific testimony.

Specific objections to studies provided by Mr. Bodie:

1. Progress in Safety Assessments of Mobile Communications:

- addresses exposure from phone, not tower
- phone use is a voluntary practice
- study does not provide any conclusive evidence between a monopole with radio transmitters at a height of 198 feet and any known health risks.

2. American Journal of Epidemiology

- not relevant at all; study is regarding short-wave and microwave diathermy units; focus was on occupational exposure to specific equipment -- nothing to do with radio waves, cellular phones or towers
- the study points out that there may have been potential flaws in the research methodology (see "Recall Bias.")

600-276-5834

ADELBERG, RUDOW, DORF, HENDLER & SAMETH, LLC

Mr. Timothy M. Kotroco

May 9, 1997

TO 2

PAGE

3. EMF Health Report

Page 3 - "With increased phone usage, the exposure from individual towers is likely to decrease in the future as the tower serves a smaller area ... there is a substantial body of research with other frequencies and signal characteristics which, for the most part, suggests a lack of biological effects at low power levels."

"There is nothing compelling in the research to indicate a reason for health concerns at the levels represented by exposures from cell sites."

4. Abstract, Elsevier Science Publishers
Chinese hamsters and microwave radiation

- study used significantly higher frequency (F.F.GHz) at greater power levels in close proximity to laboratory hamsters.
- no reference to the types of emissions being debated.
- Page 147 "The effects of non-ionizing radiation on cultured cells have been poorly investigated and the results are frequently contradictory."

5. Various Abstracts on Microwave Studies

- no relationship to the technology of frequency levels applicable to this case.

This is the danger of non-experts trying to interpret scientific studies. This is similar to a dentist trying to act as an oncologist.

Our Data: Specific to Our Technology

Enclosed are the following documents which prove beyond any doubt that our technology, based on research, investigation and tests, involves no health hazards:

ADELBERG, RUDOW, DORF, HENDLER & SAMETH, LLC

Mr. Timothy M. Kotroco

May 9, 1997

TO 3

PAGE

1. National Research Council conclusion that there is still no link between electromagnetic fields (EMF's) and health risks.
(November 1, 1996, Washington Post)
A copy of the full study can be provided. Basic conclusion: After more than 500 published studies -- including those submitted by Mr. Bodie -- they have failed to find a hazard.
2. 1996 International Commission on Non-Ionizing Radiation Protection (ICNIRP)
"The scientific evidence indicates that exposure to RF fields is not mutagenic and is therefore unlikely to act as an initiator of carcinogenesis."
3. Environmental Protection Agency correspondence to the Federal Communications Commission supporting the new federal guidelines for RF emissions which were put in place in 1996. (2 letters: 7/25/96 and 1/17/97). Our facility will operate at 1-2% of the allowable emissions under these standards.
4. August 1996 Federal Standards for RF emissions ("Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation") The environmental impact statement submitted during the hearing stated we would be within these guidelines.
5. California Public Utilities Commission 1995 Report showing no relation between health risks and EMF's. Arguably, California has some of the most aggressive pro-consumer regulations in place.
6. Safety Analysis of Electromagnetic Environment in the Vicinity of a Personal Communications Services (PCS) Base Station.
Bell Laboratories, October 1995.
7. Federal Focus National Symposium on Wireless Transmission Base Station Facilities
Wireless Technology Research, LLC.

ADELBERG, RUDOW, DORF, HENDLER & SAMETH, LLC

TO Mr. Timothy M. Kotroco
4
PAGE

May 9, 1997

If you need any additional information, please feel free to call me.

Very truly yours,


Paul A. Dorf

PAD:jrg
Enclosures
cc: Thomas G. Bodie, Esq.

020a/art

10702 Montgomery Drive
Manassas, VA 20111
April 28, 1997

Mr. Timothy Kotroco
Office of Zoning Commission
Room 112, Old Court House
400 Washington Ave.
Towson, MD 21204

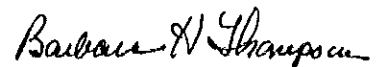
Dear Mr. Kotroco:

As co-owners of property located in the Providence Road area behind the Fire Company, we wish to bring to your attention a possible alternative to the Baltimore County variance which AT&T is seeking for their tower. We were at the Zoning Hearing held on Tuesday, 22 April, 1997 and want you to be aware of the fact that additional land is available adjoining the Providence Volunteer Fire Company. Our property in conjunction with the Fire Company's 1.1 acres would meet the 5 acre zoning requisites for placement of an antenna.

Enclosed is a copy of a recent survey plat. If you would like additional information, please contact:

Mary H. Bryant
1802 Circle Road
Baltimore, MD 21204
(410) 828-4573

Sincerely,



Barbara H. Thompson

for Mary H. Bryant
for Adrian D. Herring

Enclosure

Thomas F. Krajewski, M.D.
1417 Autumn Leaf Road
Towson, Maryland 21286
May 1, 1997

Thomas G. Bodie, Esq.
Bodie, Nagle, Dolina, Smith & Hobbs, P.A.
Attorneys at Law
21 West Susquehanna Avenue
Towson, Maryland 21204

RE: Proposed AT&T Tower at Providence Volunteer Fire Company

Dear Mr. Bodie,

Enclosed are several articles, studies and abstracts showing that microwaves can alter living tissue at the biochemical, molecular and genetic levels. Studies on humans are very limited, in part, because of potential dangers to subjects. There is, however, one article enclosed that studies the effects on women exposed to microwaves over extended periods of time.

In my professional opinion, as a former chief health advisor to the State of Maryland, there is sufficient research to cast doubt on the ultimate safety of microwaves. Unfortunately, research on this issue is still in its infancy. I would certainly recommend a moratorium on construction of such towers, particularly in residential areas where there is close proximity to residents, such as the site in this case.

Until further research is completed on the long term exposure of organisms to microwaves, no one can guarantee their safety.

Sincerely,

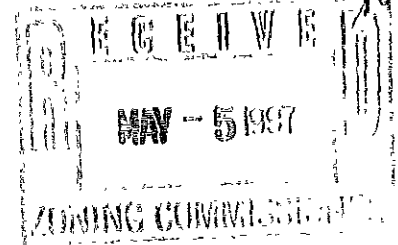
Thomas F. Krajewski, M.D.

sent copy

1418 PROVIDENCE ROAD
TOWSON, MARYLAND 21286-1520
Telephone: (410) 583-9760

April 15, 1997

Zoning Commission Office
112 Baltimore County Courthouse
400 Washington Avenue
Towson, Maryland 21204



RE: HEARING FOR SPECIAL EXCEPTION #97-276-SPHXA

Dear Zoning Commission:

We will be unable to give comment in person at the referenced hearing; therefore, please make this letter part of the official file for final consideration by the Zoning Review Board as they determine whether to make this special exception to our zoning laws. We understand that the special exception pertains to construction of an approximately 196 foot high communication tower.

We strongly oppose the County's granting this variance to allow construction of the proposed tower because: First, said tower would undoubtedly lower the value of our property, which is adjacent to the planned site. Second, we are extremely concerned and apprehensive about the possible long-term negative impact on our environment and ourselves deriving from the presence of such a transmission tower in our immediate vicinity. Finally, construction of the tower in this location would be a gross violation of the zoning laws. Apparently the set-backs from adjoining property lines that are being proposed are not remotely adequate under the current zoning laws, and the size of the proposed site is less than a fourth of the required size. Indeed, considering the gross inadequacy of the proposed site, it seems surprising that the Zoning Commission would even consider this item.

Many thanks for your consideration of our concerns. We hope most fervently that this special exception will not be granted.

Very sincerely yours,

L. Stewart
Lewis Robertson

Lewis and Lyn (Stewart) Robertson

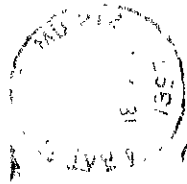
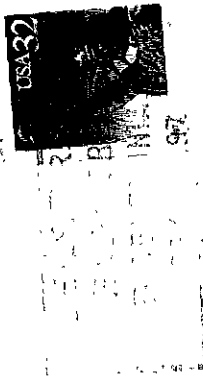
Copy:

Baltimore County Executive Ruppertsberger
Baltimore County Councilman Riley

sent
copy

1418 Providence Rd
Lawson MD 21266

Zoning Commission Office
112 Baltimore Co Courthouse
400 Washington Ave
Towson MD 21204



PLEASE PRINT CLEARLY

PROTESTANT(S) SIGN-IN SHEET

NAME

ADDRESS

Robert Bowie Jr.
Deborah Colborn

526 East Samray Ave.
1407 Autumn Leaf Rd

WALLY BRYANT

1502 CHERRY
Rd 11 1111

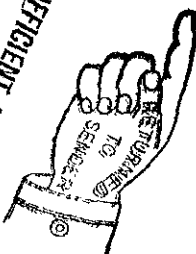
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decision





Baltimore County
Department of Permits and
Development Management
111 West Chesapeake Avenue
Towson, Maryland 21204

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PROTESTANT(S) SIGN-IN SHEET

NAME

ADDRESS

WHISTLER Burch

Ronald E Portenfield

→ Rob Conkright

Salah Nasrallah

KICH BADMINGTON

Richard Taraller

ERNESTO RIVERA

Sarajane Goodman

→ Nancy Nasrallah

Elektra Sophocleous

Robt Simmons

Robert D. Conkright Jr

Thomas Krajewski, MD.

Dan Gajjar

Y. Sophocleous

Frank Lyston

Mr + Mrs Rich Alden

Frances H. Alden

→ Ellie Krajewski

→ LONI INGRAHAM

Christine McSherry

Steve ...

Jane Naupai-Harrington

Ann L. Williams

1201 Dover Cove Rd

1206 Dover Cove Rd

1407 MARGARETTE Ave

1409 Autumn Leaf Rd

553 Valley View Rd

729 Hickory Rd.

1419 Autumn Leaf Rd

901 E. Seminary Ave.

1401 Autumn Leaf Rd

1411 Autumn Leaf Rd

1403 Autumn Leaf Rd

1312 Milldam Rd

1417 Autumn Leaf Rd.

716 Hickory Log Rd.

1411 Autumn Leaf Rd

911 Seminary

903 E. Seminary

"

1417 Autumn Leaf Rd

409 WASHINGTON AVE LL 21204

Helen Torrallo

210 W. Pennsylvania Ave

1405 Autumn Leaf Rd

1434 Autumn Leaf Rd

1415 PROVIDENCE RD,



PLEASE PRINT CLEARLY

PETITIONER(S) SIGN-IN SHEET

(In favor of application)

NAME

ADDRESS

PAUL A JORF ATTY

2 Hopkins Plaza

Chris Doherty - ATTY

8403 Cokesville Road Silver Spring MD

Mike Iglesias - ATTY

" " "

FRANCES KINGSBURY ATTY

" " "

Jeffrey A. Schwabergov, D. Garvey Corp

2010 Corporate Ridge, Ste. 700, McLean VA

DONALD J. NEUBAUER

1825 TUCKERMAN LANE, POTOMAC MD

Laura Lindeman

8403 Cokesville Rd, Silver Spring, MD

GARRETT D ZOUR PVFD

1406 NEWPORT BLVD ARLING MD

John R. Zour PVFD

9500 P J Road, Silver Spring MD

Jeffrey Sheinman (PVFD)

905 E. Woodstock Cir

Robert K. Hornbacher (PVFD)

7013 D LACHMAN CIR 21286

CHRIS CAIN (PVFD)

25 CROSS FALLS CIR.

DEAN DENNING (PVFD)

P.O. Box 36003 Towson, MD 21285

GEOFFREY L. DONAHUE (PVFD)

205 JULIA ROAD EPHRAIM, PA 17526

Michael Christ (PVFD)

1715 Northview Rd Towson MD 21234

(She goes to NDC SCHOOL

Mrs. Lady O'Toole

on newspaper

Blondell Ct

Terminum 21093

Wants copy of Order

Bette

Beth Parker or
Channel 11 Brendan

338-6501 ✓ Wants
copy of order
Call her

97-276 SPHXA

AT&T Wireless Serv.

4/22/97
Heening



**American Personal
Communications**

6905 Rockledge Drive, Suite 100 • Bethesda, MD 20837
Tel. 301-214-9200 Fax. 301-214-9402

Bill Gilman, Esq.
for 410 668-9002

Via: Federal Express

February 11, 1997

not seen until
3/9/97

Christopher Doherty
Director, Public Affairs
AT&T Wireless Services, Inc.
16th Floor
Baltimore/Washington PCS
8403 Colesville Road
Silver Spring, MD 20910

CONFIDENTIAL
ATTN: MR. DOHERTY

Dear Chris:

Thank you for your letter of February 5, 1997. You are correct that APC's hearing on the Belvedere Baptist Church site is scheduled for March 19, 1997.

Like AT&T, APC is also interested in promoting collocation. In that regard, so long as a mutually satisfactory sublease agreement can be concluded between our respective organizations, APC will permit collocation with AT&T at the church site. Please direct all sublease communications to Bernie Fitzgerald, Manager - Real Estate on 301-896-9519.

With respect to your election to defer your February 14 hearing for the Providence Volunteer Fire Department, APC shall not be responsible for the consequences of such deferral.

If you have any questions regarding APC's plan to move forward with this site, please do not hesitate to contact me directly at 301-214-9293.

Sincerely,

Gregory F. Sarro
Manager - Zoning

cc: Margaret C. Ruggieri, American PCS, LP
Bernie Fitzgerald, American PCS, LP
Dennis Rasmussen, The Rasmussen Group
Christine McSherry, Esq., Whiteford, Taylor & Preston

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AT&T

AT&T Wireless Services, Inc.
16th Floor
Baltimore/Washington PCS
8403 Colesville Road
Silver Spring, MD 20910

February 5, 1997

Not seen
until 3/9/97

Mr. Gregory F. Sarro
Manager - Zoning
American Personal Communications
6905 Rockledge Drive, Suite 100
Bethesda, MD 20817

RE: *Providence Road/Belvedere Baptist Church*

Dear Greg:

As you know, both of our organizations are at various stages of pending monopole cases in the above-referenced area. AT&T Wireless currently has a hearing date of February 14 on our application at the Providence Road Volunteer Fire Department. Our understanding is that the appeal hearing date for APC on its application at Belvedere Baptist Church is March 19. At issue is the strong citizen opposition to the Baptist Church site and the zoning variances required by the Providence Road site.

Based on the separate conversations APC and AT&T Wireless have held with Councilman Bartenfelder's office, we believe it is necessary to confirm in writing that should the AT&T Wireless application be approved by the County, AT&T Wireless will allow APC on its site, and APC would forgo its Belvedere Baptist Church site in the interests of mitigating community concerns. Conversely, should the County uphold APC's ruling on the Belvedere Baptist Church site, our understanding is that APC will allow AT&T to co-locate on its facility. Such a written confirmation should not be construed as being in lieu of a lease arrangement between AT&T Wireless and APC, rather as a good faith commitment between both carriers and the community we both seek to serve.

On the basis of the above, AT&T Wireless is deferring its hearing date of February 14 until after the appeal date scheduled for APC on March 19. Under separate cover, Frances Kingsbury will be forwarding lease agreement to Bernie Fitzgerald for APC's review.

If this is your understanding of the current situation and APC's position on the pending applications in the Providence Road area, please sign below and return to me by February 12. Should you have a different understanding, please do not hesitate to contact me and we can discuss further. My direct line is 301-578-1111.



While our two companies are competitors, we both recognize the importance of the industry working with communities to address their concerns as we develop and expand our systems. Committing to collocation on either site will benefit the industry and Baltimore County as these new technologies continue to be deployed.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chris Doherty".

Christopher Doherty
Director, Public Affairs

for American Personal Communications

cc: Hon. Joseph Bartenfelder
Paul A. Dorf, Esq.
Leonard Rothman, Esq.
Bill Gill, Hampden Gardens Community Association
Dennis Rasmussen

IN RE: PETITIONS FOR SPECIAL HEARING
AND SPECIAL EXCEPTION - E/S
Cheverly Road, 520' S of the
c/l of Valewood Road
(1301 Cheverly Road)
9th Election District
6th Councilmanic District

Glen Lewis, Trustee - Owner
American Personal Communications, Inc. - Contract Purchaser
* * * * *

* BEFORE THE
* ZONING COMMISSIONER
* OF BALTIMORE COUNTY
* Case No. 96-508-SPHX

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This matter comes before the Zoning Commissioner as Petitions for Special Hearing and Special Exception for that property known as 1301 Cheverly Road, located near Providence Road in Towson. The Petitions were filed by the owner of the property, the Belvedere Baptist Church, through Glen Lewis, Trustee, and the Contract Lessee, American Personal Communications, Inc., hereinafter referred to as "APC", through their attorney, Christine V. McSherry, Esquire. The Petitioners seek a special hearing to approve a wireless transmitting and receiving facility as a use in combination with an existing church, and a special exception to permit a wireless transmitting and receiving facility on the subject site, pursuant to Section 1B01.1.C.20 of the Baltimore County Zoning Regulations (B.C.Z.R.). The subject site and requested relief are more particularly described on the plat which accompanied the Petitions filed which has been accepted and marked into evidence as Petitioner's Exhibit 9.

Appearing at the requisite hearing held in this case were Pastor Wendell Ward, representing the Belvedere Baptist Church, legal owner of the property, Gregory Sarro and Andres Falotico, representatives of APC, the Contract Lessee, Melanie Moser, Landscape Architect with Daft-McCune-Walker, Inc., and Kevin Mason, an independent consultant retained by APC for this project.

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BALTIMORE COUNTY
JAN 11 1997
3

and that due to valid considerations, including, but not limited to, location, economic, elevation, engineering or technological feasibility, no other appropriate location is available.

The Protestants contend that there are other locations available and that the tower should be located elsewhere. The Petitioners and their witnesses testified that this is the best and most suitable location. Resolution of this issue is most difficult.

One of the potential alternatives suggested was the Providence Volunteer Fire Department. As noted above, APC originally considered that site. During my field inspection, I also drove to the site and familiarized myself with the property.

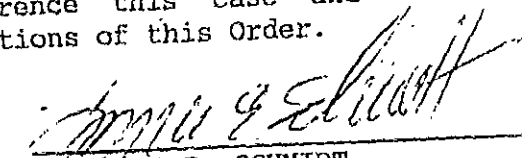
I concur with the Petitioners that the Providence Volunteer Fire Department property is not a better alternative. That property is very small and variance relief would be necessary in order to comply with the requirement that it be set back a minimum distance two times its height. Moreover, the site does not meet the required 5 acre minimum size. The property is also located within a residential community. Although the site itself serves an institutional type purpose, the immediate vicinity and adjacent properties are residential. Merely moving the tower from the midst of one residential community to another is not an appropriate alternative. On balance, in my judgment, the Church site, with its larger acreage and topographic features, is more appropriate.

The second alternative suggested by the community was the WITH AM tower. As noted above, representatives from that radio station testified that the tower was not "hot" and that they were agreeable to leasing space thereon for APC's antennae. The testimony offered in this regard was from Ed Graham and Dwight Weller, employees of WITH. Mr. Weller, in particular,

time as the 30-day appellate process from this Order has expired. If, for whatever reason, this Order is reversed, the relief granted herein shall be rescinded.

2) No lights, at all, shall be permitted on the tower. If they are required by the Federal Aviation Administration (FAA), then the relief granted herein shall be rescinded and the Petitioners shall be prohibited from using this site.

3) When applying for any permits, the site plan and landscaping plan filed must reference this case and set forth and address the restrictions of this Order.


LAWRENCE E. SCHMIDT

Zoning Commissioner
for Baltimore County.

LES:bjs

Jim KOTRACO
D. Z.B.

Resolution No. 27-97

Councilmembers Bartenfelder and Moxley

By the County Council, April 7, 1997

A RESOLUTION of the Baltimore County Council requesting a temporary moratorium on the construction or siting of wireless transmission structures or cellular phone towers in residential zones of Baltimore County.

WHEREAS, the Baltimore County Zoning Regulations currently regulate structures known as "wireless transmitting and receiving structures"; and

WHEREAS, these structures are permitted as a matter of right in certain business and manufacturing zones (subject to setback, fencing and environmental protection standards) and by special exception in certain residential zones; and

WHEREAS, the current Zoning Regulations were adopted by the County Council in 1986, and

WHEREAS, since 1986, significant technological advances have occurred in the communications field, and there is a growing market for wireless communications which in turn generates a need for additional sites for communications towers; and

WHEREAS, although these towers are useful to the operations of police and fire departments, television and radio stations, and cellular telephone companies, residents living within the vicinity of these towers are rightly concerned about the effects of these structures on their communities; and

WHEREAS, the recent proliferation of these communications towers, particularly in the residential zones of the County, points up the need for a complete inventory of existing structures and a comprehensive plan for the location of additional structures; and

WHEREAS, the number of communications towers currently in existence may provide sufficient capacity for the existing demand, especially by requiring that tower space be shared by cellular phone companies; and

PROPOSED
RESOLUTION
NO. 27-97
4

WHEREAS, the Baltimore County Council has requested the Planning Board to review the law in order to update the Zoning Regulations applicable to communications towers (Resolution 55-96); and

WHEREAS, the Maryland General Assembly is currently considering legislation which would authorize local governments to adopt specified criteria for the location of communications towers and to adopt procedures for processing applications for permits or other approvals of such facilities; and

WHEREAS, pending the receipt of the report of the Planning Board and the final action of the General Assembly, all permits or other approvals for the construction or siting of wireless communications structures or cellular phone towers should be halted in areas of the County where a sufficient amount of tower space is available to accommodate potential users, thereby allowing the County Administration and the County Council an opportunity to devise a comprehensive, thoughtful program for the location of additional towers throughout Baltimore County.

NOW, THEREFORE, BE IT RESOLVED by the County Council of Baltimore County, Maryland, that all County agencies and offices are hereby urged to halt the processing of permits or other approvals for the construction or siting of communications structures of any kind in the County's residential zones if a sufficient amount of tower space is available to accommodate potential users, until the receipt by the County Council of the final report of the Planning Board and until the General Assembly has completed its decision-making process with respect to this subject.

R02797

**American Personal
Communications**6905 Rockledge Drive, Suite 100 • Bethesda, MD 20817
Tel. 301-214-9200 Fax. 301-214-9402

Via: Facsimile & Federal Express

April 17, 1997

Christopher Doherty
Director, Public Affairs
AT&T Wireless Services, Inc.
16th Floor
Baltimore/Washington PCS
8403 Colesville Road
Silver Spring, MD 20910

**PROTESTANT'S
EXHIBIT NO. 5**

Dear Chris:

As you may be aware, on April 1, 1997 the Baltimore County Board of Appeals approved American Personal Communications' ("APC") Petitions for Special Exception and Special Hearing to construct a 150' monopole at the Belvedere Baptist Church, Cheverly Road, Towson, MD.

As indicated previously, upon execution of a sublease agreement APC will permit collocation with AT&T at the Belvedere Baptist Church site. Please direct all sublease communications to Bernie Fitzgerald, Manager - Real Estate on 301-896-9519.

If you have any questions regarding APC's plan to move forward with this site, please do not hesitate to contact me directly at 301-214-9293.

Sincerely,

Gregory F. Sarro
Manager - Zoning

cc: Margaret C. Ruggieri, APC
J. Barclay Jones, APC
Bernie Fitzgerald, APC
Dennis Rasmussen, The Rasmussen Group
Christine McSherry, Esq., Whiteford, Taylor & Preston
Joseph Bartenfelder, Chairman - Baltimore County Council
Arnold Jablon, Director - Permits and Development Management

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Site Number	B-103	Closest Town	Towson	Design Site Information			
Site Name	Providence Rd	County	BC	Gnd Elv (m)	136	RC (m)	52
Address	1416 Providence Rd	Topo Map	Towson	Min Total (m)	178	Max Total (m)	180
State	MD	Scale	1:24,000	Latitude	39-25-25N	Longitude	76-33-57W
Coverage Objectives	Provide coverage on Providence Rd and Seminary Ave. Site hand-off to B33.3 and B32.3						

Pet No
8

PLEASE PRINT CLEARLY

PETITIONER(S) SIGN-IN SHEET

NAME

ADDRESS

Michael Yglesias ATTNS

8403 Colesville Rd, 16th Floor Silver Spring, MD 20910

Frances Kingsbury ATTNS

" " "

Jeffrey Schonberger / D. Garvey Corp.

1945 Old Gallows Rd, Ste. 200, Vienna, VA 22186

CHRIS DOWERTY, ATT T WIRELESS

3403 COLESVILLE RD SILVER SPRING MD 20910

GARRETT D. LOUR Providence V.F.C

1406 NEWPORT PL. Lutherville, MD 21093

WILLIAM JEFFREY DAVIDSON

985 METFIELD RD 21284

DONALD J. NEUBAUER

7825 TUCKERMAN LANE, POTOMAC 20854



Progress in
**Safety Assessments of Mobile
Communications**

(Revised Title: Mobile Communication

Editors

N. Kuster, O. Balzano, J. C. Lin

Safety.

Chapman, Hall, New York, 1996



American Journal of EPIDEMIOLOGY

Volume 138

Number 10

November 15, 1993

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School of Hygiene and Public Health

Sponsored by the Society for Epidemiologic Research

ORIGINAL CONTRIBUTIONS

Miscarriages among Female Physical Therapists Who Report Using Radio- and Microwave-frequency Electromagnetic Radiation

Rita Ouellet-Hellstrom and Walter F. Stewart

Physical therapists are exposed to radio- and microwave-frequency electromagnetic radiation by operating shortwave and microwave diathermy units. Recent studies suggest that use of shortwave diathermy is associated with an excess risk of birth defects, perinatal deaths, and late spontaneous abortions among the offspring of exposed female therapists. To assess the impact of occupational use of microwave and shortwave diathermy at the time of conception, the authors mailed questionnaires to 42,403 physical therapists in 1989. Both occupational and reproductive histories were obtained. Exposures to shortwave and microwave diathermy were both assessed in the same fashion and were examined in relation to early recognized fetal loss in a nested case-control design. A total of 1,753 case pregnancies (miscarriages) were matched to 1,753 incidence density control pregnancies (other pregnancies except ectopic pregnancies). A pregnancy was considered "exposed" if the mother reported using microwave or shortwave diathermy anytime during the 6 months prior to the first trimester or during the first trimester. Pregnancies of mothers reporting microwave use 6 months prior to the pregnancy or during the first trimester were more likely to result in miscarriage (odds ratio (OR) = 1.28, 95% confidence interval (CI) 1.02-1.59). The odds ratio increased with increasing level of exposure ($\chi^2 = 7.25$, $p < 0.005$). The odds ratio in the highest exposure group (20 or more exposures/month) was 1.59. The overall odds ratio was slightly lower after it was controlled for prior fetal loss (OR = 1.26, 95% CI 1.00-1.59), but the exposure-response effect remained ($\chi^2 = 5.17$, $p < 0.01$). The risk of miscarriage was not associated with reported use of shortwave diathermy equipment (OR = 1.07, 95% CI 0.91-1.24). The odds ratio in the highest exposure group was 0.87. *Am J Epidemiol* 1993; 138:775-86.

abortion; electromagnetic fields; microwaves; occupational exposure; physical therapy; radiation; radio waves; short-wave therapy

The frequency band for medical diathermy equipment using shortwave radiation is 27.12 MHz, and for microwave radiation it is 915 MHz and 2,450 MHz (1).

Unlike ultrasonic waves, which must propagate through a medium (water and gel), electromagnetic waves propagate freely through air. Absorption depends, in part, on the di-

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EMF Health Report

Covering the Health Effects of ElectroMagnetic Fields

Power lines Appliances MRI Video display terminals Radio VHF-TV Cellular phones Microwaves UHF-TV Radar

Volume 4 • Number 5

September/October 1996

0-300 Hz 30 kHz 3 MHz 300 MHz 3 GHz 30 GHz

INSIDE

Cellular Phone Tower on School Roof 3

The Telecommunications Act of 1996: FCC Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation 4

Why is the Risk Indicated by EMF Research so Uncertain? 5

Conclusion: Uncovering Misconceptions and Individual Risk Decisions 6

RECENT RESEARCH

Waterbeds and Electric Blankets not Associated with Childhood Brain Tumors 6

Residential EMFs Lower in UK than US, Power Line EMFs More Discernible 7

Measurement Variability of Residential Magnetic Fields 8

Magnetic Field Exposure Estimates for Electrical Utility Workers 8

Leukemia and Brain Tumors Increased in Electrical Workers in England 9

Ecological and Health Effects of Military Radar in Latvia 10

Occupational EMF Exposure Data Collection in Poland and US 11

Abbreviations 7

ISSN 1070-4027

Three Common Questions from the Real World: One Scientist's Answers

by Robert B. Goldberg, Ph.D.

Most concerns about EMF are basic and pragmatic: people worry about the purchase of a house near a power transmission line, a cellular phone tower proposed for their child's elementary school, their computer monitor, or industrial EMF sources. This article describes how one scientist responds to practical questions about the safety of EMFs based on ambiguous scientific data.

As a scientist who reviews EMF research literature, I frequently receive phone calls from people with questions that need an immediate answer. Around the country, at utilities, in factories, or at federal agencies, many other "EMF experts" are also called upon to provide advice and guidance in an area where there is very little hard information.

Recognizing the difficulty of providing substantive answers, I would like to share my responses to three typical questions from the

public. The answers that I have developed are an attempt to provide some perspective on the possible health risks presented by exposure to various types of EMF without either dismissing or over-dramatizing the problems.

I have written this article in the first person because this is my approach to answering these questions from callers and the opinions expressed are my own. Here are a few typical paraphrased questions I have received and my approach to answering them.

? I am considering buying a new house but noticed a 138 kV power line about 100 feet from the back yard. Is this a problem and should I avoid buying the house?

There are two important components in a question like this--one relating to the actual EMF exposure and the other to what risks may come from that exposure. I usually start by pointing out that it is hard to tell if a nearby powerline will cause a home to have elevated magnetic field levels without making field measurements or at least getting a good estimate from the utility company based on the typical power load carried by the line.

Most people do not realize that magnetic field levels relate to current rather than voltage, and the large towers of high voltage lines usually appear more threatening than less obtrusive distribution lines. Since magnetic field levels decrease rapidly with distance from the source, small distribution lines close to a home may actually produce more intense magnetic field exposures than

Continued on page 2

The relationship between colony-forming ability, chromosome aberrations and incidence of micronuclei in V79 Chinese hamster cells exposed to microwave radiation

Vera Garaj-Vrhovac, Durda Horvat and Zlatko Koren

*Institute for Medical Research and Occupational Health and Faculty of Electrical Engineering, University of Zagreb,
41000 Zagreb (Yugoslavia)*

(Received 4 January 1991)

(Revision received 22 January 1991)

(Accepted 25 January 1991)

Keywords: V79 cells; Microwave radiation; Colony-forming ability; Chromosome aberration; Micronuclei

Summary

Cultured V79 Chinese hamster fibroblast cells were exposed to continuous radiation, frequency 7.7 GHz, power density 0.5 mW/cm² for 15, 30 and 60 min. The effect of microwave radiation on cell survival and on the incidence and frequency of micronuclei and structural chromosome aberrations was investigated. The decrease in the number of irradiated V79 cell colonies was related to the power density applied and to the time of exposure. In comparison with the control samples there was a significantly higher frequency of specific chromosome aberrations such as dicentric and ring chromosomes in irradiated cells. The presence of micronuclei in irradiated cells confirmed the changes that had occurred in chromosome structure. These results suggest that microwave radiation can induce damage in the structure of chromosomal DNA.

For the past 20 years chromosome aberrations have been well-known as a good indicator of changes in the cell genome and have been related to mutagenic and carcinogenic risk as a result of exposure to particular agents (Fenech et al., 1990). A similar and more reliable method that shows sensitivity of chromosome material to clastogenic

agents is the micronucleus test (Kornios and Koeteles, 1988; Ramalho et al., 1988). The test is applicable as soon as the cells undergo the second mitotic division after exposure. With analysis of chromosome aberrations, the micronucleus technique gives valuable data on various aberration types that can be induced both *in vivo* and *in vitro*.

A known mutagenic agent that affects the character of natural electromagnetic fields by emitting controlled or uncontrolled energy in its environment is non-ionizing radiation. Its damaging

Correspondence: Dr. V. Garaj-Vrhovac, Institute for Medical Research and Occupational Health, University of Zagreb, Moseleva 158, 41000 Zagreb (Yugoslavia)

Miscarriages among female physical therapists who report using radio- and microwave-frequency electromagnetic radiation.

Abstract: Physical therapists are exposed to radio- and **microwave**-frequency electromagnetic radiation by operating shortwave and **microwave** diathermy units. Recent studies suggest that use of shortwave diathermy is associated with an excess risk of birth defects, perinatal deaths, and late spontaneous abortions among the offspring of exposed female therapists. To assess the impact of occupational use of **microwave** and shortwave diathermy at the time of conception, the authors mailed questionnaires to 42,403 physical therapists in 1989. Both occupational and reproductive histories were obtained. Exposures to shortwave and **microwave** diathermy were both assessed in the same fashion and were examined in relation to early recognized fetal loss in a nested case-control design. A total of 1,753 case pregnancies (miscarriages) were matched to 1,753 incidence density control pregnancies (other pregnancies except ectopic pregnancies). A pregnancy was considered "exposed" if the mother reported using **microwave** or shortwave diathermy anytime during the 6 months prior to the first trimester or during the first trimester. Pregnancies of mothers reporting **microwave** use 6 months prior to the pregnancy or during the first trimester were more likely to result in miscarriage (odds ratio (OR) = 1.28, 95% confidence interval (CI) 1.02-1.59). The odds ratio increased with increasing level of exposure ($\chi^2 = 7.25$, p

Author:

- Ouellet-Hellstrom R
- Stewart WF

Abbreviated Journal Title: Am J Epidemiol

Date Of Publication: 1993 Nov 15

Journal Volume: 138

Page Numbers: 775 through 786

Country of Publication: UNITED STATES

Language of Article: Eng

Issue/Part/Supplement: 10


ISSN: 0002-9262

Contract/Grant Information:

- **Number:** 1 RO1 OH02373-01A1 **Acronym:** OH **Organization:** NIOSH

MESH Headings:

- Abortion (Central Concept)
- Adult
- Case-Control Studies
- Diathermy
- Female



The relationship between colony-forming ability, chromosome aberrations and incidence of micronuclei in V79 Chinese hamster cells exposed to microwave radiation.

Abstract: Cultured V79 Chinese hamster fibroblast cells were exposed to continuous radiation, frequency 7.7 GHz, power density 0.5 mW/cm² for 15, 30 and 60 min. The effect of **microwave** radiation on cell survival and on the incidence and frequency of micronuclei and structural chromosome aberrations was investigated. The decrease in the number of irradiated V79 cell colonies was related to the power density applied and to the time of exposure. In comparison with the control samples there was a significantly higher frequency of specific chromosome aberrations such as dicentric and ring chromosomes in irradiated cells. The presence of micronuclei in irradiated cells confirmed the changes that had occurred in chromosome structure. These results suggest that **microwave** radiation can induce damage in the structure of chromosomal DNA.

Author:

- Garaj-Vrhovac V
- Horvat D
- Koren Z

Address: Institute for Medical Research and Occupational Health, Faculty of Electrical Engineering, University of Zagreb, Yugoslavia.

Abbreviated Journal Title: Mutat Res

Date Of Publication: 1991 Jul

Journal Volume: 263

Page Numbers: 143 through 149

Country of Publication: NETHERLANDS

Language of Article: Eng

Issue/Part/Supplement: 3

ISSN: 0027-5107

MESH Headings:

- Animal
- Cell Division
- Cell Line
- Cell Survival
- Chromosome Aberrations
- Chromosomes (Central Concept)
- DNA (Central Concept)
- Fibroblasts (Central Concept)
- Hamsters
- Heat
- Micronucleus Tests



Altered restriction patterns of microwave irradiated lambdaphage DNA.

Abstract: Samples of lambdaphage DNA exposed to short pulses of **microwave** irradiation were subjected to restriction fragmentation by Eco RI and Bam HI. Eco RI digests of microwaved DNA samples yielded three additional fragments ranging in base pair lengths between 24,226 and 7,421 besides the six expected fragments. While Bam HI digests of the microwaved samples did not yield any additional fragments, mobilities of the Bam HI fragments from the microwaved DNA samples were slower and the bands were broader in comparison to those from native samples. We attribute these altered restriction patterns to the conformational anomalies in DNA resulting from single strand breaks and localized strand separations induced by **microwave** irradiation.

Author:

- Narasimhan V
- Huh WK

Address: Department of Chemistry and Physics, Skidmore College, Saratoga Springs, NY 12866

Abbreviated Journal Title: Biochem Int

Date Of Publication: 1991 Sep

Journal Volume: 25

Page Numbers: 363 through 370

Country of Publication: AUSTRALIA

Language of Article: Eng

Issue/Part/Supplement: 2

ISSN: 0158-5231

MESH Headings:

- Amino Acid Sequence
- Bacteriophage lambda (Central Concept)
- Deoxyribonuclease BamHI
- Deoxyribonuclease EcoRI
- DNA, Viral (Central Concept)
- Electrophoresis, Agar Gel
- **Microwaves** (Central Concept)
- Molecular Sequence Data
- Nucleic Acid Conformation
- Oligopeptides

Chemical Abstract Service Registry Number:

Antibody responses of mice exposed to low-power microwaves under combined, pulse-and-amplitude modulation.

Abstract: Irradiation by pulsed **microwaves** (9.4 GHz, 1 microsecond pulses at 1,000/s), both with and without concurrent amplitude modulation (AM) by a sinusoid at discrete frequencies between 14 and 41 MHz, was assessed for effects on the immune system of Balb/C mice. The mice were immunized either by sheep red blood cells (SRBC) or by glutaric-anhydride conjugated bovine serum albumin (GA-BSA), then exposed to the **microwaves** at a low rms power density (30 microW/cm²; whole-body-averaged SAR approximately 0.015 W/kg). Sham exposure or **microwave** irradiation took place during each of five contiguous days, 10 h/day. The antibody response was evaluated by the plaque-forming cell assay (SRBC experiment) or by the titration of IgM and IgG antibodies (GA-BSA experiment). In the absence of AM, the pulsed field did not greatly alter immune responsiveness. In contrast, exposure to the field under the combined-modulation condition resulted in significant, AM-frequency-dependent augmentation or weakening of immune responses.

Author:

- Veyret B
- Bouthet C
- Deschaux P
- de Seze R
- Geffard M
- Joussot-Dubien J
- le Diraison M
- Moreau JM
- Caristan A

Address: Laboratoire de Bioelectromagnetisme de l'Ecole Pratique des Hautes Etudes: ENSCPB.

Abbreviated Journal Title: Bioelectromagnetics

Date Of Publication: 1991

Journal Volume: 12

Page Numbers: 47 through 56

Country of Publication: UNITED STATES


Language of Article: Eng

Issue/Part/Supplement: 1

ISSN: 0197-8462

MESH Headings:

- Animal
- Antibody Formation (Central Concept)
- Male



Effects of modulated and continuous microwave irradiation on the morphology and cell surface negative charge of 3T3 fibroblasts.

Abstract: Mouse embryo 3T3 cells were irradiated with 2450 MHz continuous and low frequency (16 Hz) square modulated waves of absorbed energy ranging from 0.0024 to 2.4 mW/g. The low frequency modulated **microwave** irradiation yielded more morphological cell changes than did the continuous **microwave** fields of the same intensity. The amount of free negative charges (cationized ferritin binding) on cell surfaces decreased following irradiation by modulated waves but remained unchanged under the effect of a continuous field of the same dose. Modulated waves of 0.024 mW/g dose increased the ruffling activity of the cells, and caused ultrastructural alteration in the cytoplasm. Similar effects were experienced by continuous waves at higher (0.24 and 2.4 mW/g) doses.

Author:

- Somosy Z
- Thuroczy G
- Kubasova T
- Kovacs J
- Szabo LD

Address: Frederic Joliot-Curie National Research Institute for Radiobiology and Radiohygiene, Budapest, Hungary.

Abbreviated Journal Title: Scanning Microsc

Date Of Publication: 1991 Dec

Journal Volume: 5

Page Numbers: 1145 through 1155

Country of Publication: UNITED STATES

Language of Article: Eng

Issue/Part/Supplement: 4

ISSN: 0891-7035

MESH Headings:

- Animal
- Cell Membrane
- Cells, Cultured
- Ferritin
- Ligands
- Mice
- Microscopy, Electron, Scanning
- **Microwaves**
- Radiation, Non-Ionizing

The effect of microwave radiation on the cell genome.

Abstract: Cultured V79 Chinese hamster cells were exposed to continuous radiation, frequency 7.7 GHz, power density 30 mW/cm² for 15, 30, and 60 min. The parameters investigated were the incorporation of [3H]thymidine and the frequency of chromosome aberrations. Data obtained by 2 methods (the incorporation of [3H]thymidine into DNA and autoradiography) showed that the inhibition of [3H]thymidine incorporation took place by complete prevention of DNA from entering into the S phase. The normal rate of incorporation of [3H]thymidine was recovered within 1 generation cycle of V79 cells. Mutagenic tests performed concurrently showed that even DNA macromolecules were involved in the process. In comparison with the control samples there was a higher frequency of specific chromosome lesions in cells that had been irradiated. Results discussed in this study suggest that **microwave** radiation causes changes in the synthesis as well as in the structure of DNA molecules.

Author:

- Garaj-Vrhovac V
- Horvat D
- Koren Z

Address: Institute for Medical Research and Occupational Health, University of Zagreb, Yugoslavia.

Abbreviated Journal Title: Mutat Res

Date Of Publication: 1990 Feb

Journal Volume: 243

Page Numbers: 87 through 93

Country of Publication: NETHERLANDS

Language of Article: Eng

Issue/Part/Supplement: 2

ISSN: 0027-5107

MESH Headings:

- Animal
- Autoradiography
- Cells, Cultured
- Chromosome Aberrations
- Chromosomes (Central Concept)
- Dose-Response Relationship, Radiation
- DNA (Central Concept)
- **Microwaves** (Central Concept)
- Scintillation Counting
- Support, Non-U.S. Gov't
- Thymidine

Physiological changes in rats after exposure to low levels of microwaves.

Abstract: The effects of exposure to sublethal levels of **microwaves** were studied. Young albino rats of both sexes were exposed for 60 days to 7.5-GHz **microwaves** (1.0-KHz square wave modulation, average power 0.6 mW/cm²) for 3 h daily. During and after **microwave** exposure several physiological parameters were measured in both control and exposed animals. It was found that the animals exposed to **microwaves** tended to eat and drink less and thus showed a smaller gain in body weight. Some of the hematological parameters and organ weights were also significantly different. It is proposed that a nonspecific stress response due to **microwave** exposure and mediated through the central nervous system is responsible for the observed physiological changes.

Author:

- Ray S
- Behari J

Address: School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India.

Abbreviated Journal Title: Radiat Res

Date Of Publication: 1990 Aug

Journal Volume: 123

Page Numbers: 199 through 202

Country of Publication: UNITED STATES

Language of Article: Eng

Issue/Part/Supplement: 2

ISSN: 0033-7587

MESH Headings:

- Animal
- Blood Cell Count
- Blood Sedimentation
- Body Weight
- Drinking
- Eating
- Female
- Hemoglobins
- Male
- **Microwaves** (Central Concept)
- Organ Weight
- Rats



Microwave irradiation of rats at 2.45 GHz activates pinocytotic-like uptake of tracer by capillary endothelial cells of cerebral cortex.

Abstract: Far-field exposures of male albino rats to 2.45-GHz **microwaves** (10-microseconds pulses, 100 pps) at a low average power density (10 mW/cm²; SAR approximately 2 W/kg) and short durations (30-120 min) resulted in increased uptakes of tracer through the blood-brain barrier (BBB). The uptake of systemically administered rhodamine-ferritin complex by capillary endothelial cells (CECs) of the cerebral cortex was dependent on power density and on duration of exposure. At 5 mW/cm², for example, a 15-min exposure had no effect. Near-complete blockade of uptake resulted when rats were treated before exposure to **microwaves** with a single dose of colchicine, which inhibits microtubular function. A pinocytotic-like mechanism is presumed responsible for the **microwave**-induced increase in BBB permeability.

Author:

- Neubauer C
- Phelan AM
- Kues H
- Lange DG

Address: Department of Anesthesiology and Critical Care Medicine, Johns Hopkins Medical Institutions, Baltimore, MD 21205.

Abbreviated Journal Title: Bioelectromagnetics

Date Of Publication: 1990

Journal Volume: 11

Page Numbers: 261 through 268

Country of Publication: UNITED STATES

Language of Article: Eng

Issue/Part/Supplement: 4

ISSN: 0197-8462

Contract/Grant Information:

- **Number:** ES03386 **Acronym:** ES **Organization:** NIEHS

MESH Headings:

- Animal
- Blood-Brain Barrier (Central Concept)
- Capillary Permeability (Central Concept)
- Male
- **Microwaves** (Central Concept)
- Pinocytosis (Central Concept)

The correlation between the frequency of micronuclei and specific chromosome aberrations in human lymphocytes exposed to microwave radiation in vitro.

Abstract: Human whole-blood samples were exposed to continuous **microwave** radiation, frequency 7.7 GHz, power density 0.5, 10 and 30 mW/cm² for 10, 30 and 60 min. A correlation between specific chromosomal aberrations and the incidence of micronuclei after in vitro exposure was observed. In all experimental conditions, the frequency of all types of chromosomal aberrations was significantly higher than in the control samples. In the irradiated samples the presence of dicentric and ring chromosomes was established. The incidence of micronuclei was also higher in the exposed samples. The results of the structural chromosome aberration test and of the micronucleus test were comparatively analyzed. The values obtained showed a positive correlation between micronuclei and specific chromosomal aberrations (acentric fragments and dicentric chromosomes). The results of the study indicate that **microwave** radiation causes changes in the genome of somatic human cells and that the applied tests are equally sensitive for the detection of the genotoxicity of **microwaves**.

Author:

- Garaj-Vrhovac V
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Address: Institute for Medical Research and Occupational Health, University of Zagreb, Yugoslavia.

Abbreviated Journal Title: Mutat Res

Date Of Publication: 1992 Mar

Journal Volume: 281

Page Numbers: 181 through 186

Country of Publication: NETHERLANDS

Language of Article: Eng

Issue/Part/Supplement: 3

ISSN: 0165-1110

MESH Headings:

- Cells, Cultured
- Chromosome Aberrations (Central Concept)
- Dose-Response Relationship, Radiation
- Human
- Karyotyping
- Lymphocytes (Central Concept)
- Micronuclei (Central Concept)
- Micronucleus Tests
- **Microwaves** (Central Concept)

Effects of whole body microwave exposure on the rat brain contents of biogenic amines.

Abstract: The effects of whole body **microwave** exposure on the central nervous system (CNS) of the rat were investigated. Rats weighing from 250 to 320 g were exposed for 1 h to whole body **microwave** with a frequency of 2450 MHz at power densities of 5 and 10 mW.cm⁻² at an ambient temperature of 21-23 degrees C. The rectal temperatures of the rats were measured just before and after **microwave** exposure and mono-amines and their metabolites in various discrete brain regions were determined after microwave exposure. **Microwave** exposure at power densities of 5 and 10 mW.cm⁻² increased the mean rectal temperature by 2.3 degrees C and 3.4 degrees C, respectively. The noradrenaline content in the hypothalamus was significantly reduced after **microwave** exposure at a power density of 10 mW.cm⁻². There were no differences in the dopamine (DA) content of any region of the brain between **microwave** exposed rats and control rats. The dihydroxyphenyl acetic acid (DOPAC) content, the main metabolite of DA, was significantly increased in the pons plus medulla oblongata only at a power density of 10 mW.cm⁻². The DA turnover rates, the DOPAC:DA ratio, in the striatum and cerebral cortex were significantly increased only at a power density of 10 mW.cm⁻². The serotonin (5-hydroxytryptamine, 5-HT) content in all regions of the brain of **microwave** exposed rats was not different from that of the control rats. The 5-hydroxyindoleacetic acid (5-HIAA) content in the cerebral cortex of **microwave** exposed rats was significantly increased at power densities of 5 and 10 mW.cm⁻². (ABSTRACT TRUNCATED AT 250 WORDS)

Author:

- Inaba R
- Shishido K
- Okada A
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Abbreviated Journal Title: Eur J Appl Physiol

Date Of Publication: 1992

Journal Volume: 65

Page Numbers: 124 through 128

Country of Publication: GERMANY

Language of Article: Eng

Issue/Part/Supplement: 2

ISSN: 0301-5548

MESH Headings:

- Animal
- Biogenic Amines (Central Concept)
- Body Temperature
- Brain Chemistry (Central Concept)



Wireless Facts

THE FACTS ABOUT WIRELESS SAFETY

Fifty years of scientific and practical experience from around the world has established the safety of the family of radio technologies that include wireless. This safety is documented in more than 10,000 radio-related studies, governed by established safety standards, and based on additional margins of safety due to the low power requirements of wireless. Nevertheless -- perhaps because wireless is often perceived as a completely new technology -- people sometimes raise questions about wireless safety.

Most often, these questions are driven by the concern of the unknown. Some people worry that wireless is a new and unproved technology. As a result, those who question wireless safety often demand the impossible -- proof that undiscovered hazards do not exist. But wireless is really just low power radio -- a technology that has been in use for nearly a century and that has been studied exhaustively.

The scientific facts indicate that wireless is a safe, reliable technology. There has never been a shred of scientific evidence establishing a health or safety risk associated with wireless. Not only that, but wireless easily complies with nationally and internationally recognized safety standards -- even those that do not formally apply to low power technologies such as wireless.

Consider these other facts about the safety of wireless technology:

- **Wireless technology has nothing to do with power lines.** The health and safety concerns raised about power lines in the media and other places do not apply to wireless. Wireless calls are sent and received in the form of low power radio signals. Wireless telephone service employs a very familiar, safe technology that has been studied and used around the world for nearly a century.
- **Wireless equipment operates at very low power.** Portable wireless telephones generally operate at six tenths of a watt (0.6 watts) or, at the maximum, 1 watt -- about the same power as a walkie talkie. Radio links function at an effective maximum power of 120 watts per channel. Wireless radio equipment is extremely low power compared to other familiar radio systems, such as AM, FM, and television broadcast stations which operate upwards of 50,000 watts.

The Washington Post

FRIDAY, NOVEMBER 1, 1996

A

Power Line Hazard Called Small

Electromagnetic Fields Not Linked to Health Problems

By Curt Suples

Washington Post Staff Writer

The kinds of electromagnetic fields generated in and around the average American home by power lines and household appliances pose no discernible hazard to human health, a blue-ribbon scientific panel announced yesterday after three years of intensive study.

In releasing the results of the most extensive investigation of the issue to date, a committee of the National Research Council stated that there is no "conclusive and consistent evidence" that ordinary exposure to electromagnetic fields in the home can "produce cancer, adverse neurobehav-

ioral effects, or reproductive and developmental effects."

The long-awaited study was mandated by Congress in 1993 in response to growing public concern over reports linking such fields, called EMFs, with a legion of maladies, such as brain and breast cancer in electrical workers, miscarriages among computer-terminal users, and leukemia and behavioral problems in youth.

Public anxiety began to escalate in the early '90s after New Yorker writer Paul Brodeur brought the subject to a wide audience. Since then, millions of dollars have been spent to reduce EMF levels in residential areas (including a recent high-pro-

See EMP, A4, Col. 1

HEALTH ISSUES RELATED TO THE USE OF HAND-HELD RADIOTELEPHONES AND BASE TRANSMITTERS

International Commission on Non-Ionizing Radiation Protection*

INTRODUCTION

THIS STATEMENT from the International Commission on Non-Ionizing Radiation Protection (ICNIRP) addresses the health issues related to the radiofrequency radiation emissions from hand-held radiotelephones and base transmitters.

ICNIRP has previously reviewed the published data on adverse health effects of exposure to radiofrequency radiation. This review was published by the World Health Organisation (WHO) (UNEP/WHO/IRPA 1993) and, together with further review of more recent scientific publications, forms the basis for this statement.

"Guidelines on limits of exposure to radiofrequency electromagnetic fields in the frequency range 100 kHz to 300 GHz" was published in 1988 by the predecessor of ICNIRP, the International Non-Ionizing Radiation Committee (INIRC) of the International Radiation Protection Association (IRPA). These guidelines included limits for both whole and partial body exposure in terms of specific absorption rate (SAR) and were intended to prevent the effects of whole body or localized heating. SAR is the power absorbed per unit mass (watt per kilogram, $W\ kg^{-1}$). The guidelines were not intended to apply to low power radio transceivers whose radiated power is less than 7 W.

Since the publication of these guidelines there has been a significant increase in the use of hand-held

radiotelephones, together with an extension of the coverage of reception areas with more fixed base transmitters, often sited in residential areas. This has led to concerns being expressed about risks to health, and in particular about cancer, from the emissions of such telephones and their base stations. The adequacy of current protection limits has also been questioned.

Following the extensive review of the health effects of RF exposure conducted in conjunction with WHO (UNEP/WHO/IRPA 1993), ICNIRP is formulating guidelines on exposure limits.

The frequency range of emissions of most hand-held radiotelephones is from about 800 MHz to 2 GHz. However, it is likely that further technological developments will lead to the use of higher frequencies.

TECHNICAL CHARACTERISTICS

Hand-held radiotelephone systems involve communication between mobile handsets and fixed base transmitters that provide coverage of specific areas (cells). In the mid 1980's a first generation of analogue radiotelephone systems was introduced using frequencies less than 1 GHz. In the absence of a global standard different systems have appeared. Analogue systems are in widespread use throughout the world and are expected to remain in existence until early in the next century when gradual replacement by digital systems will be complete.

Digital systems are based upon the harmonized European standard known as GSM, named after the Group Spéciale Mobile, which originally drafted its specification. The initial frequency allocation for GSM is adjacent to that of the analogue system to allow the frequency spectrum to be gradually transferred as demand shifts from analogue to digital. A further set of digital communications systems, known as Personal Communication Network (PCN), is based on the GSM standard. One such system is known as DCS1800 and operates within a band of frequencies spread around 1.8 GHz. Each 25 kHz channel of the analogue system carries one call; however, the digital systems use the Time Division Multiple Access (TDMA) scheme to carry up to eight calls per 200 kHz channel.

Packets of information, known as bursts, are transmitted to and from each mobile base station in the appropriate time slots. An important feature of mobile communication systems is adaptive power control. This

*At the 8th International Congress of the International Radiation Protection Association (Montreal, 18-22 May, 1992), the IRPA established a new independent scientific organization, the International Commission on Non-Ionizing Radiation Protection (ICNIRP), as a continuation of the former IRPA/International Non-Ionizing Radiation Committee (IRPA/INIRC). The functions of the Commission are to investigate non-ionizing radiation (NIR) hazards, develop international guidelines on limiting exposure to NIR and to deal with all aspects of NIR protection. During the preparation of this statement, the composition of the Commission was as follows: M. H. Repacholi, Chairman (Australia), M. Grandolfo, Vice-chairman (Italy), A. Ahlbom (Sweden), U. Bergqvist (Sweden), J. H. Bernhardt (Germany), J. P. Césarini (France), L. A. Court (France), A. F. McKinlay (UK), D. H. Sliney (USA), J. A. J. Stolwijk (USA), M. L. Swicord (USA), L. D. Szabo (Hungary), T. S. Tenforde (USA), H. P. Jammet, Chairman-emeritus (France), R. Matthes, Scientific Secretary (Germany). ICNIRP Secretariat, c/o Dipl.-Ing. R. Matthes, Bundesamt für Strahlenschutz, Institut für Strahlenhygiene, Ingolstädter Landstraße 1, D-85764 Oberschleißheim, Germany.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 25 1996

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THE ADMINISTRATOR

Honorable Reed E. Hundt
Chairman
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

Dear Mr. Hundt:

Thank you for your letter of July 1, 1996, advising me that the Federal Communications Commission (FCC) is completing the process of updating its radio frequency (RF) exposure guidelines, and asking that the Environmental Protection Agency (EPA) review the FCC's approach to developing new guidelines.

As you point out in your letter, EPA commented on a 1993 proposed rule on RF exposure guidelines and recommended that the FCC consider adopting certain features of the National Council on Radiation Protection and Measurements (NCRP) guidelines along with others recommended by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers, Inc. (IEEE). The National Institute for Occupational Safety and Health (NIOSH), the Food and Drug Administration (FDA), and the Occupational Safety and Health Administration (OSHA) also commented on this proposal and proposed additional changes.

As a result of these comments, you indicated that you are considering an approach that responds to the recommendations made by the EPA and by the other federal health and safety agencies, incorporates elements from both ANSI/IEEE and NCRP, and includes: 1) adoption of limits for field strength and power density limits based on NCRP recommendations (the ANSI/IEEE and NCRP limits are similar up to 1500 MHz, above which NCRP has different MPE limits); 2) adoption of ANSI/IEEE limits for localized specific absorption rate (SAR) (again, similar to NCRP); 3) deferring adoption of the ANSI/IEEE radiated power exclusion clause pending possible future consideration of a modified version; 4) a categorical exclusion policy for certain transmitters; and 5) endorsement of measurement procedures described in ANSI/IEEE C95.3 and NCRP Report No. 119.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 17 1997

OFFICE OF
AIR AND RADIATION

Honorable Read E. Hundt
Chairman, Federal Communications Commission
1919 M Street, N. W.
Washington, D. C. 20554

Dear Mr. Hundt:

In a letter of July 1, 1996, you requested that the Environmental Protection Agency (EPA) review an approach the Federal Communications Commission (FCC) was considering in developing new radio frequency (RF) exposure guidelines. This approach incorporated elements of guidelines developed by both the American National Standards Institute, the Institute of Electrical and Electronics Engineers, Inc., and the National Council on Radiation Protection and Measurements. In a July 25 letter, Administrator Browner concurred with the FCC approach as adequate to protect public health and indicated that it was consistent with more extensive comments made in November 1993. In regulations issued in August 1996, the FCC finalized this approach based on the recommendations of EPA and other federal health agencies.

Since Administrator Browner's letter in July, some confusion has arisen about EPA's support for the FCC's final RF exposure guidelines. This has occurred as a result of an October 8, 1996, letter from Norbert Hankin of my staff responding to an earlier written request from David Fichtenberg of the State of Washington. In his letter, Mr. Hankin answers several detailed questions about the state of the science on RF exposure. Apparently, Mr. Hankin's response has been incorrectly construed as a departure from the Administrator's position in July.

I would like to reiterate EPA's support of the FCC's final RF exposure guidelines issued in August as providing adequate protection of public health.

Mailed

NOV. 9 1995

Decision 95-11-017 November 8, 1995

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the)
 Commission's Own Motion to develop)
 Policies and Procedures for addressing)
 the potential health effects of)
 electric and magnetic fields of utility)
 facilities.)

I.91-01-012
 (Filed December 19, 1991)

O P I N I O N

Background

This investigation was opened to consider the Commission's potential role in mitigating health effects, if any, of power frequency electric and magnetic fields (EMFs) created by electric utility power lines and by cellular radiotelephone facilities. Initial comments on the specific EMF issues identified in the investigation demonstrated a consensus that EMF issues involving electric utilities and cellular utilities should be addressed separately. Accordingly, an October 11, 1991 Administrative Law Judge (ALJ) ruling bifurcated this investigation, with the first phase to address EMF generated from electric utilities and the second phase to address radio-frequency (RF) and EMF radiation generated by cellular utilities.

In the electric utilities phase we found by Decision (D.) 93-11-013 that there was no scientific link between power frequency EMFs and adverse health effects to humans. However, in response to the public concern and the scientific uncertainty regarding the potential health effects of EMF exposure, steps were established to address EMFs related to new and upgraded electric utility facilities and power lines. These steps included no-cost and low-cost measures to reduce EMF levels, workshops to develop EMF design guidelines, uniform residential and workplace EMF measurement programs, involvement by stakeholders and the public, a \$1,489,000,

**Safety Analysis of the Electromagnetic Environment in the
Vicinity of a Personal Communication Services (PCS) Base Station**

Radiation Protection and Product Safety Department
AT&T Bell Laboratories
Murray Hill, New Jersey 07974-0636

Summary

This report is a safety analysis of the radiofrequency (RF) electromagnetic environment in the vicinity of a typical AT&T Wireless Services PCS radio base station. The analysis utilizes engineering data provided by AT&T Wireless, together with well-established analytical techniques for calculating the RF electromagnetic fields associated with PCS antennas. Worst-case assumptions were used to ensure safe-side estimates, i.e., the actual values will be significantly lower than the corresponding analytical values. The analysis indicates that the maximum level of RF energy to which the public may be exposed is below all applicable health and safety limits.

Specifically, in all normally accessible areas in the neighborhood surrounding a typical PCS installation, the maximum levels of RF energy associated with operation of the antennas will be 1,200 times below the exposure limits of the 1992 ANSI/IEEE C95.1 safety guideline.

Prepared for
AT&T Wireless Services
15 E. Midland Avenue
Paramus, New Jersey 07652

October 12, 1995

*Federal Focus
National Symposium
on Wireless
Transmission Base
Station Facilities:*

A Tutorial

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Environmental Impact Statement

AT&T Wireless Services, Inc.
Providence Volunteer Fire Company

December 1996

DMW Project No. 96035.27

PROVIDENCE VOLUNTEER FIRE COMPANY
December 1996

Prepared for:

AT&T Wireless Services, Inc.
8403 Colesville Road
Silver Spring, MD 20910

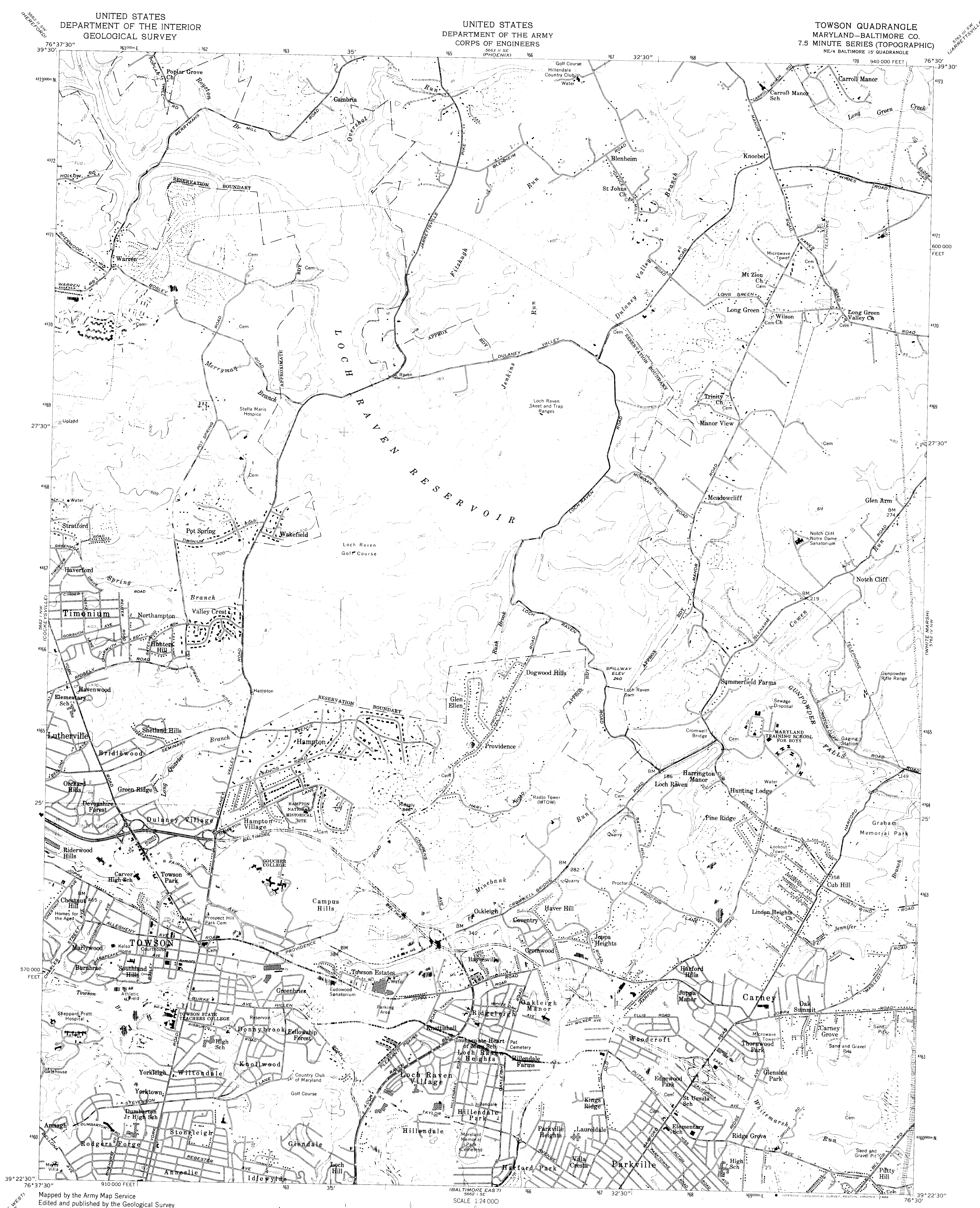


Prepared by:

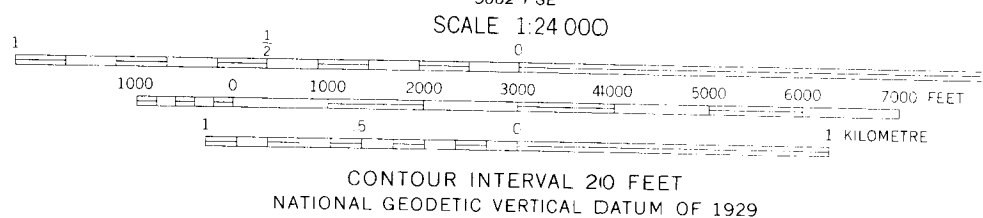
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Max Kantzer



Mapped by the Army Map Service
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Culture and drainage in part compiled from aerial photographs
taken 1943. Topography by planetable surveys 1944
Culture revised by the Geological Survey 1957
Polyconic projection. 1927 North American datum
10,000-foot grid based on Maryland coordinate system
1000-metre Universal Transverse Mercator grid ticks,
zone 18, shown in blue
Red tint indicates areas in which only
landmark buildings are shown



ROAD CLASSIFICATION
Heavy-duty Light duty
Medium-duty Unimproved dirt
Interstate Route U.S. Route State Route

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NE/4 BALTIMORE 15' QUADRANGLE
39076-05-TF-024
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To place on the predicted North American Datum 1983,
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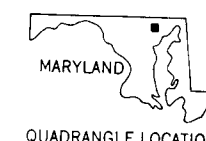
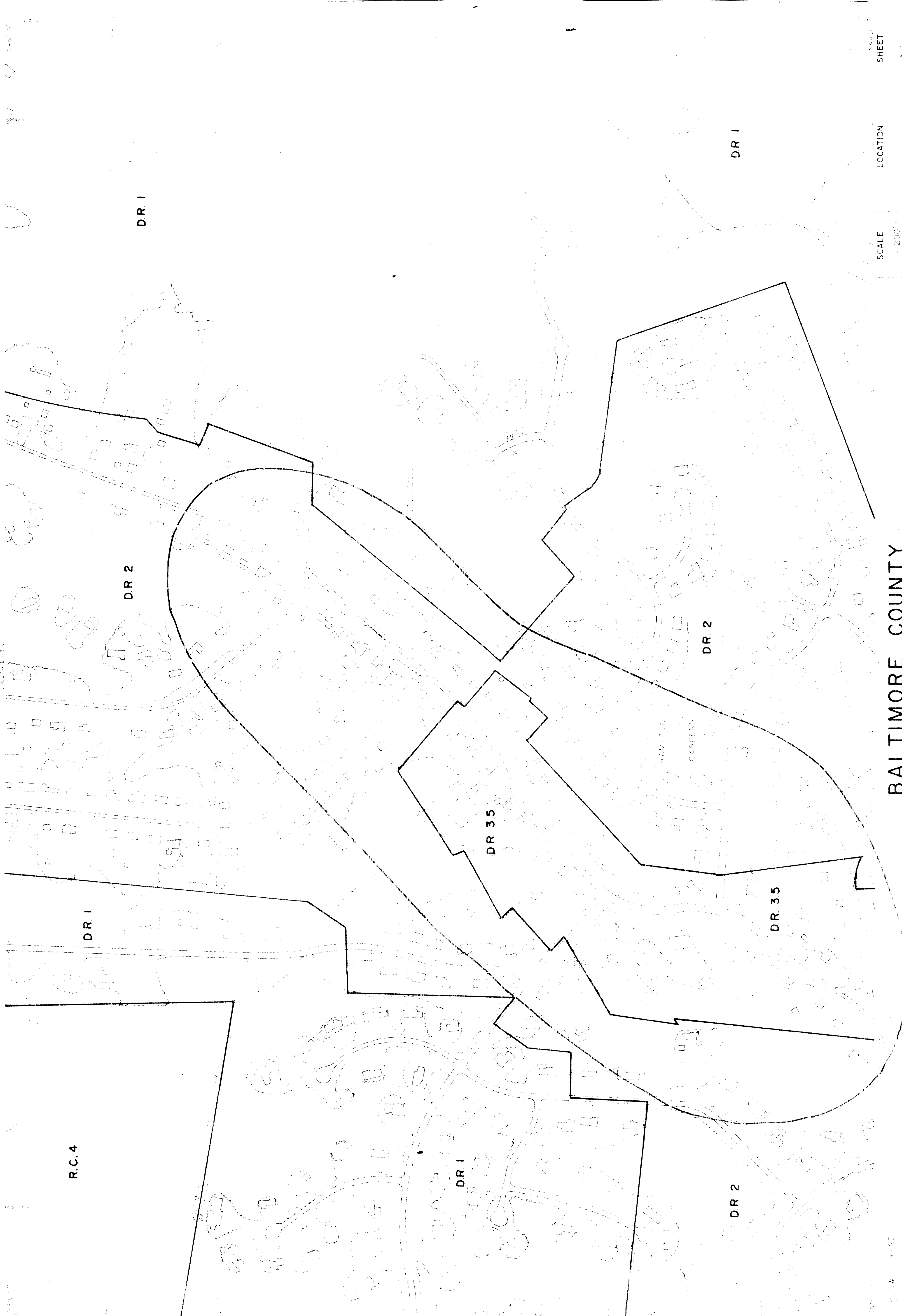


Exhibit 2 (two)

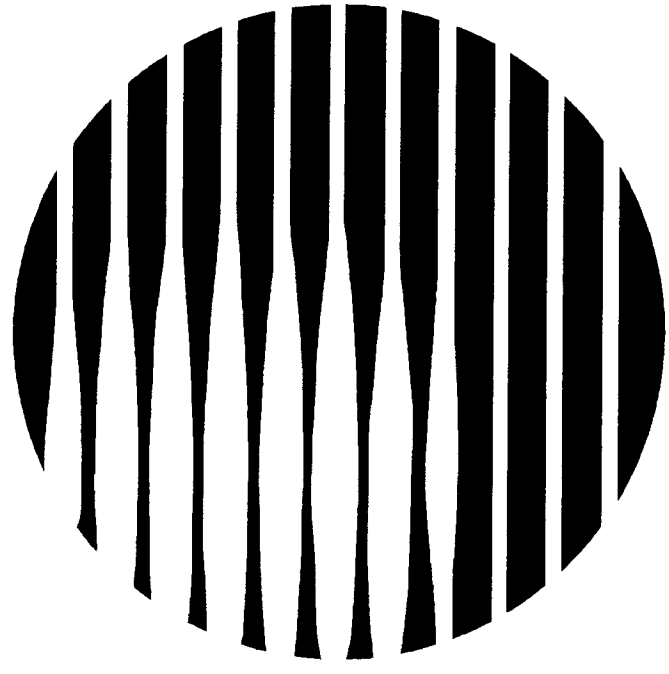


**BALTIMORE COUNTY
OFFICE OF PLANNING AND ZONING
OFFICIAL ZONING MAP**

SCALE 1" = 200'	LOCATION PROVIDENCE	SHEET NE 2-5
DATE OF PHOTOGRAPHY JANUARY 1986		

THIS MAP HAS BEEN REVISED IN SELECTED AREAS
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Tax Map 61
Block Number 17
Lot Number 137
Latitude (NAD 83)
Longitude (NAD 83)
Ground Elevation
Verification Method GPS
Height AG AMSL
Total AMSL
Structure Type (BOCA Classification)
Project Number 96035.27
Date NOVEMBER 19, 1996
Project Manager REM
Design AT&T
Structural
Mechanical
Electrical GLOCK-SMIDT
Surveyor DWM, INC.
Drawn By MSS
ISSUED FOR CONSTRUCTION 95% SUBMISSION
Revisions

PROPOSED UNMANNED WIRELESS COMMUNICATION SITE

B103.0

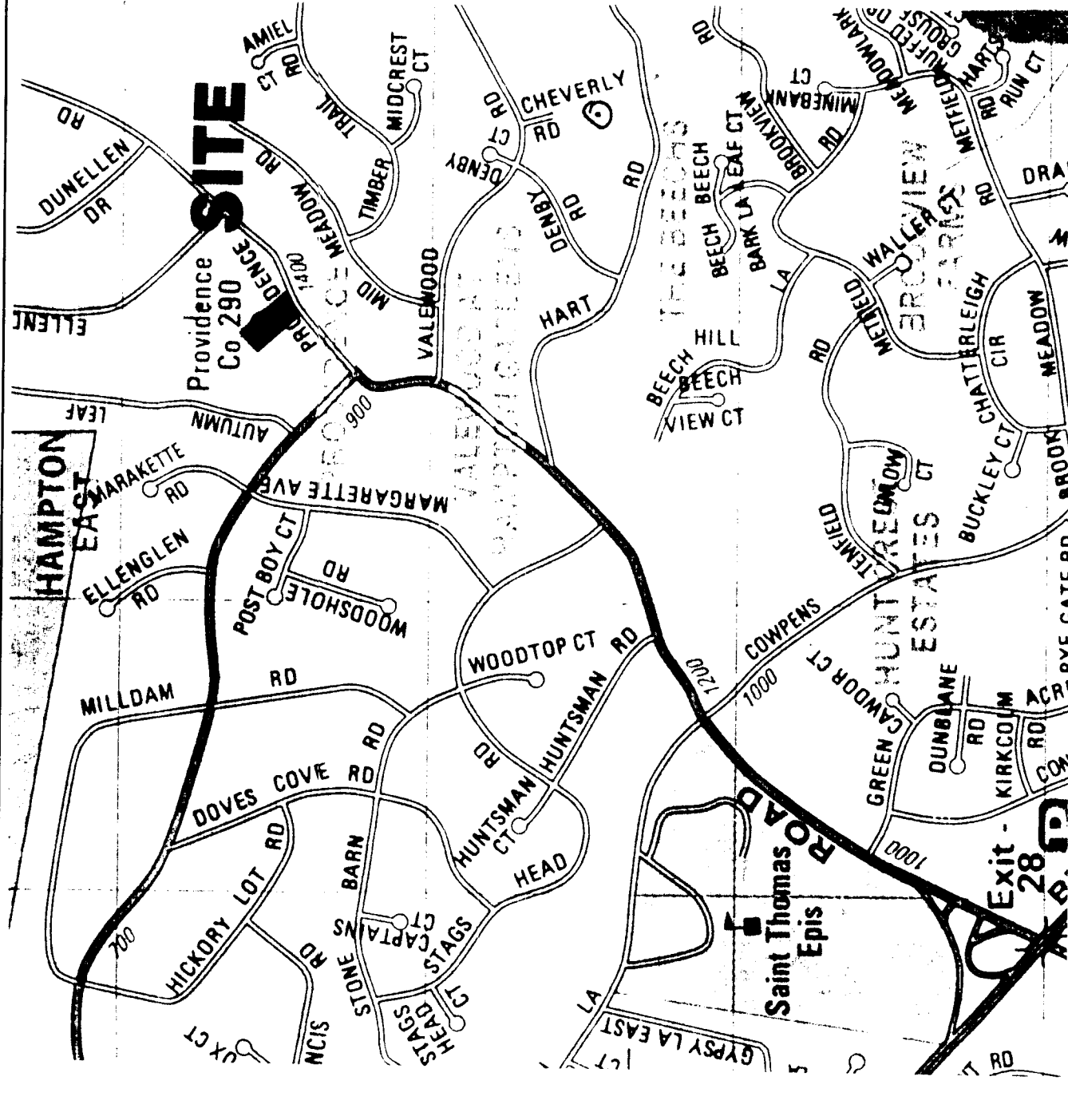
PROVIDENCE VOLUNTEER FIRE COMPANY

1416 PROVIDENCE ROAD

TOWSON, MARYLAND 21286

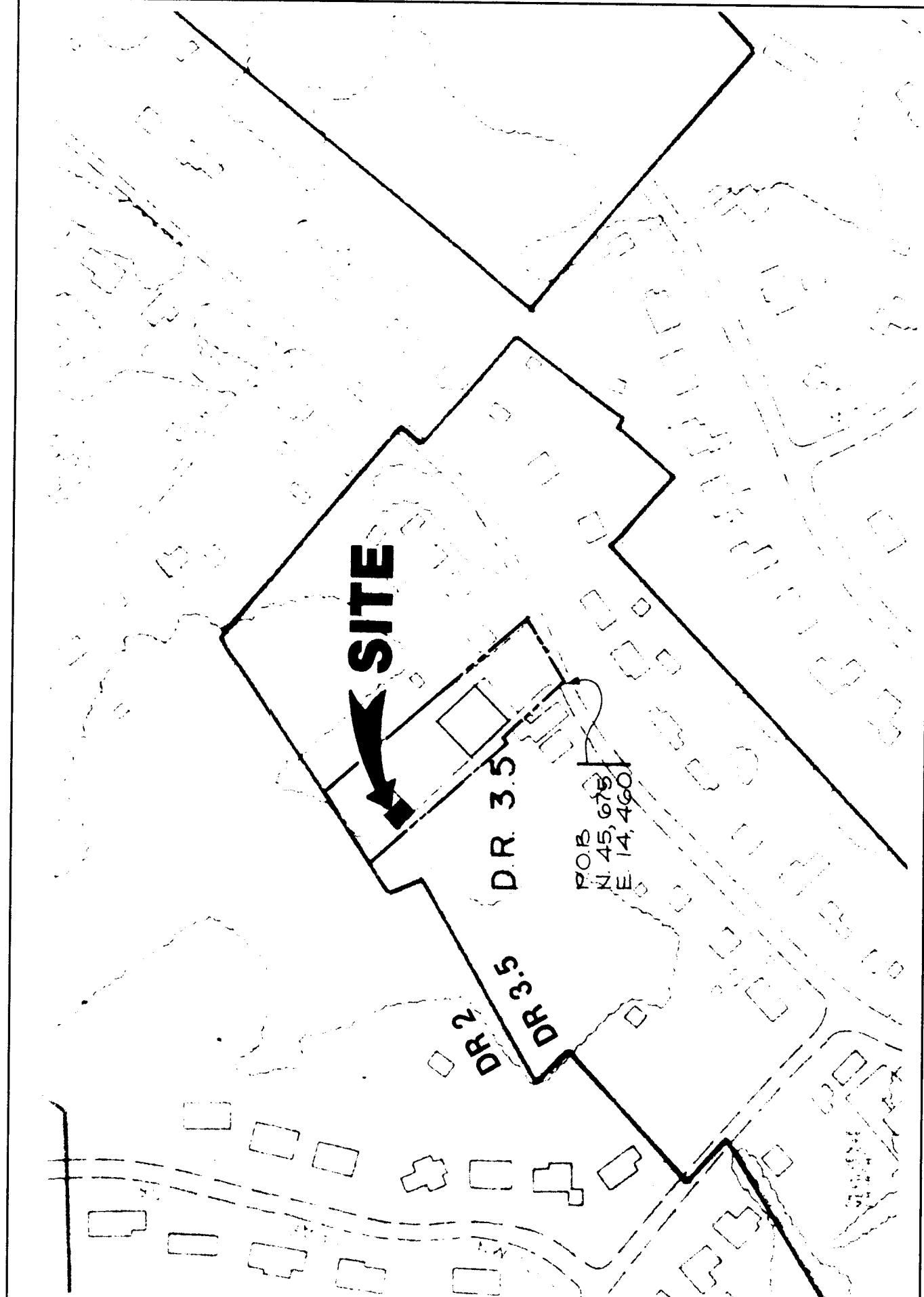
PRINTED
DEC 19 1996

DIRECTIONS TO SITE:
TAKE EXIT 28 FROM THE BALTIMORE BELTWAY (I-695) FOR PROVIDENCE ROAD.
TRAVEL NORTHEAST ON PROVIDENCE ROAD APPROXIMATELY 1.25 MILES TO THE
PROVIDENCE VOLUNTEER FIRE COMPANY ON THE LEFT.



VICINITY MAP
SCALE: 1" = 1000'

JURISDICTION: BALTIMORE COUNTY, MARYLAND
ZONING: DR 3.5
☐ EXISTING BUILDING ☐ EXISTING ANTENNA TOWER ☒ RAW LAND ☐ EXISTING WATER TOWER



PORTION OF BALTIMORE COUNTY 200 SCALE ZONING MAP NE 12-C

ZONING MAP
SCALE: 1" = 200'

SHT. NO.	DESCRIPTION
T1	TITLE SHEET
C1	OVERALL SITE PLAN
APPLICABLE CODES: BOCA 1993; USBC 1993; NEC 1993	

AT&T CONSTRUCTION COORDINATOR:	
SIGNATURE	DATE
AT&T'S APPROVAL:	
SIGNATURE	DATE
OWNERS APPROVAL:	
SIGNATURE	DATE
THESE PLANS ARE THE SOLE PROPERTY OF AT&T WIRELESS, 8402 COLESVILLE ROAD, SILVER SPRING, MD 20910	

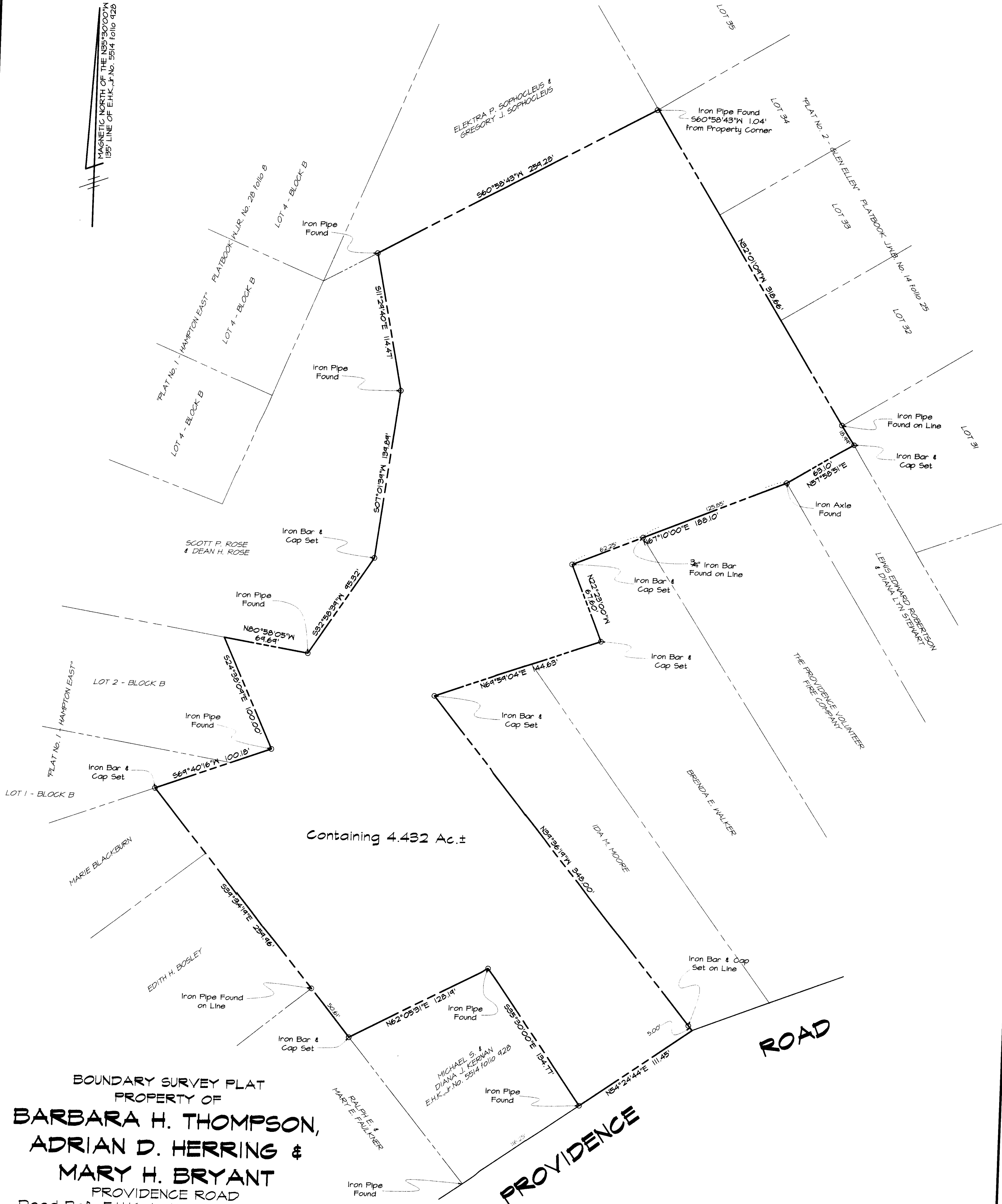
INDEX

APPROVAL

T1

MOORE/MLD

MAGNETIC NORTH OF THE N25°30'00"W
135° LINE OF E.H.K., Jr. No. 5514 folio 428



Containing 4.432 Ac.±

BOUNDARY SURVEY PLAT
PROPERTY OF
**BARBARA H. THOMPSON,
ADRIAN D. HERRING &
MARY H. BRYANT**
PROVIDENCE ROAD
Deed Ref: E.H.K., Jr. No. 6902 folio 750
Tax Account Nos. 09-07-470030
16-00-006419 & 20-00-001559
Tax Map 61; Grid 17; Parcels 189, 392 & 418
9th ELECTION DISTRICT
4th COUNCILMANIC DISTRICT
BALTIMORE COUNTY, MARYLAND
Scale: 1" = 50' Date: January 14, 1997

GERHOLD, CROSS & ETZEL, LTD.
REGISTERED PROFESSIONAL LAND SURVEYORS
Suite 100
320 East Townsontown Boulevard
Towson, Maryland 21286
PH: (410)823-4470 FAX: (410)823-4473
FIELD WORK: G.T.L. DRAWN: S.A.L.

FILE No.: 1395